COMMONWEALTH MYCOLOGICAL
INSTITUTE
LIBRARY
11 NOV 1985
7615

Report of the

DIRECTOR-GENERAL OF FORESTS

for the year ended

31 March 1985

Presented to the House of Representatives Pursuant to Section 68 of the Forests Act 1949

BY AUTHORITY: V. R. WARD
GOVERNMENT PRINTER, WELLINGTON, NEW ZEALAND—1985

Price $3.40

Minister of Forests

I have the honour to present my report for the year ended 31 March 1985.

A. KIRKLAND, Director-General of Forests.

Further information on this report is available from:
New Zealand Forest Service,
Head Office,
Private Bag,
Wellington.

CONTENTS

DIRECTOR-GENERAL'S COMMENT *Page*

Future Directions for the Forest Service 6
Administrative Changes 8
Finance 8
Production and Trade 9

1. FOREST MANAGEMENT

PRODUCTION FORESTRY—GENERAL

Policy
Plantation Management Policy for Radiata Pine .. 10
Silvicultural Review 10
Review of 1986/87 New Planting and Restocking Programmes 10
Workshop on Douglas Fir 10
Nursery Rationalisation 11
Forest Grazing 11
Harvesting and Marketing Strategy 11
Kauri Policy 12
Salvage of Indigenous Timber 12

Performance
Establishment and Management 13
Harvesting and Marketing 13
Indirect Costs in the Production Programme .. 14
Planting Programme 14
Indigenous Production 14

Land 15
Fire Control 16

PRODUCTION FORESTRY—MARKETING

Introduction 16
Pricing Policy for State Exotic Wood 16
Industry Liaison 18
Log Exports 19
Pricing Policy for Indigenous Timber 20

ENVIRONMENTAL FORESTRY

Wild Animal Control
Game Recovery Licensing 20
Animal Control 21
Raoul Island Goat Eradication 21

	Page
Protection, Recreation and Amenity in State Forests	
Soil and Water Protection	22
Protected Area Management	22
Recreation	23
ENGINEERING	
Civil Engineering	
Roading	25
Architecture	25
Surveying	25
Electrical Engineering (Telecommunications)	26
Mechanical Engineering	
Mechanical Design Services	26
Waipa Sawmill and Power Generation Project	27
Plant and Vehicles	27
Charging for Services	27
2. CORPORATE AND FORESTRY SERVICES	
CORPORATE SERVICES	28
Personnel and Administration	28
Management Support Division	29
Finance Division	30
EDP Division	31
ADVISORY SERVICES	32
Forest Management Extension	32
Forest Products Extension	33
Forest Quarantine	34
Timber Preservation Authority	35
Overseas Development Assistance	35
PLANNING SERVICES	36
Landscape Planning	36
Town and Country Planning	37
Better Information on Small, Private Forests	37
National Forest Description	38
Energy Planning	38
Economics	38
3. COMMERCIAL—SAWMILLING	
Profit	39
Log Supply	39
Production	40
Sales	40
Domestic Market	40

Page

Australia 40
Japan 40
USA 41
Pacific Islands 41
Capital Development 41

4. RESEARCH

Research Programme 42
Reorganisation 42
Pulp and Paper Research Partnership 42

APPENDICES

1. Area of State Forest Land 43
2. New Area Planted in State Exotic Forests 44
3. Establishment and Clear Felling in State Exotic Forests 44
4. Total Removals from State Forests 46
5. Total Wood Removals from State Indigenous Forests by Method of Sale 47
6. Total Wood Removals from State Exotic Forests by Method of Sale 48
7. Production of Rough Sawn Timber 49
8. Financial Statements 51

DIRECTOR-GENERAL'S COMMENT

Future Directions for the Forest Service It is now urgent for the Government to decide the future role and directions for the Forest Service. The department has been under continuous review for the first half of the 1980s, with proposals ranging from complete separation of the main functions to merging of the whole organisation into a larger land administering agency. The resultant uncertainty is unsettling to staff and must eventually impair efficiency if it has not already done so. Certainly the time of senior management has been substantially diverted from important reforms needed to adapt the Forest Service to rapid change over the next decade. The changes are nationally significant and it will not be possible to properly prepare the department for them without the stability of a clear-cut mandate and respite from external reviews.

Over the past 20 years the Forest Service has planted nearly 350,000 hectares of new forest and increased the area of State plantations by 250 percent. This year State forests produced 4.7 million cubic metres of wood, half of the national production. By the end of the 1990s this figure will have increased to between 8 and 9 million cubic metres. A comparable increase can be expected in private sector production. The sector, State and private, faces its biggest challenge yet—one of major national significance in diversifying export income. This aspect of Forest Service management alone demands the closest attention. To it must be added the rapidly changing requirements of administration of forests for values not measurable in commercial terms.

As reported last year after the decision was taken not to merge the Forest Service and the Department of Lands and Survey, a review was to be undertaken by the State Services Commission and Treasury of the functions of existing and proposed statutory bodies associated with the administration of lands and forests. Much could be achieved at modest cost by redefining their responsibilities to cover both departments. This review was not undertaken because of the probability that an even wider review of environmental administration would impinge on both departments and on their advisory bodies. That likelihood was confirmed by the conclusions of the Environmental Forum held in March 1985.

The fundamental question upon which decisions must be taken on future directions for the Forest Service is whether integration or separation of the various State forestry functions is preferable. One view is that a broad-based Forest Service should be maintained having as its mandate all of those State roles related to forests and the products thereof. Forestry in this view is considered a reasonable "bite-sized" component of Government administration with the

emphasis on the linkages between apparently disparate activities being seen as a strength in themselves.

A counter view comes from two sources. In the "opening of the books" under the incoming Government, the Treasury clearly favoured the separation of commercial from non-commercial activities. The reasons centre around the perceived need for a more commercial approach by State-owned enterprises generally, and the related desire for better accountability and "transparency" in commercial activity. The arguments by the conservation movement that all preservation-oriented forest and land management should be placed in a single agency which does not have a significant development role have a similar basis. Accountability and performance in the preservation/conservation role is seen to be jeopardised by having to simultaneously accommodate development objectives.

The problem confronting policy makers is that preservation, conservation and development objectives for lands and forests of the Crown must be simultaneously accommodated, often within a single territorial unit. This is recognised in the Government's policy of integrating conservation and development. What is perceived to be a problem of conflicting roles by those favouring separation is thus seen as the challenge of effectively managing public lands and natural resources by those espousing integration.

It was recognised at the department's Management Conference that two major thrusts were required by the Forest Service:

—to take a more commercial approach to the department's commercial operations, particularly production forestry;

—to enhance the commitment to the "non-commercial" aspects of managing forested lands and a related environmental sensitivity.

Positive directions for both were traversed, including proposed changes to the status of indigenous forest under the Forests Act.

It was concluded that the apparent clash between the desire for accountability by function on the one hand and integrated resource management on the other can be reconciled. It is not a simple task and requires financial accounting of high quality as well as a clear definition on the relationship between functional and territorial responsibilities of various managers.

A framework for the latter was established at the conference. There is also a need for a formal and impartial process for major decisions on the allocation of lands and forests of the Crown to development or preservation-oriented management. Administrative separation could accentuate rather than dispense with this need.

It was apparent from the conclusions reached at the Environmental Forum that the question of integration or separation of commercial

and non-commercial forestry functions and land management must come to a head in 1985. The outcome will have importance well beyond the Forest Service but for the department it is potentially the most far-reaching administrative event since its formation 65 years ago. The progressive evolution of an integrated Government forestry agency over that period has been a major factor in creating the opportunities now in front of the forestry sector and in gaining international respect for accomplishments in both development and conservation.

Whatever the outcome, it is vital that unambiguous decisions be made without further delay on the administrative framework for the State's role in forestry.

Administrative Changes During the year two appointments were made to Deputy Director-General positions and Head Office divisional responsibilities were reorganised accordingly. The reorganisation is reflected in the presentation of this report.

Finance Parliament appropriated $397.0 million to Vote: Forest Service for the year ended 31 March 1985. Actual gross expenditure was $369.7 million. Receipts for the year were $159.1 million, $11.8 million more than estimated. Net expenditure (receipts less payments) totalled $210.6 million which is $39.1 million less than estimated.

The vote provides only for cash receipts and payments. Financial Statements are prepared on an accrual basis and published as Appendix 8 of this report. These statements relate to financial years ending on 31 December. As these differences cause confusion in evaluating the performance of the Forest Service discussions have continued with Treasury, with the objective of implementing a common financial year and accrual accounting as the prime basis for both management and financial reporting.

The Financial Statements show production forestry sales turnover of $80.0 million and sawmilling sales of $60.6 million. Total sales amounted to $140.7 million. After deduction of operating expenditure of $87.1 million the operating surplus amounted to $53.6 million, an increase of 85 percent over 1983.

Net expenditure on non-income earning activities was $115.2 million, and increase of 142 percent primarily due to the additional $67.2 million paid out in forestry encouragement grants (since discontinued).

Capital development undertaken during the year totalled $149.9 million of which $115.7 million related to the exotic forest crop. The value of this crop is assessed to have increased by $610 million during the year. This unrealised increment is not currently reflected in measurements of financial profitability, and results in

understatement of earnings. Discussions are continuing with the forestry industry on an acceptable accounting treatment which will result in more appropriate disclosure.

Production and Trade

Production

Commodity	Year ended 31/3/84	Year ended 31/3/83	Average of 5 years to 31/3/84
Removal of wood from NZ forests (Roundwood) (000m³)	9 335	9 627	9 816
Sawn timber (000 m³)	2 096	2 136	2 137
Exotic	1 959	1 986	1 975
Indigenous	136	150	162
Pulp (000 tonnes)	1 062	1 042	1 113
Paper and paperboard (000 tonnes)	694	671	697
Veneer (000 m³)	68	85	81
Plywood	48	55	55
Particleboard	158	140	151
Fibreboard	142	121	128

Trade The latest statistics for trade in forest products are for the year ended 31 December 1984. The table below gives that data with comparisons.

Commodity	Year ended 31/12/84	Year ended 31/12/83	Average of 5 years to 31/12/84
Exports			
Total value (million $)	724	578	574
Logs and poles			
Volume (000 m³)	371	528	597
Value (million $)	30	38	38
Sawn Timber			
Volume (000 m³)	458	459	516
Value (million $)	110	83	86
Pulp			
Volume (000 tonnes)	460	473	468
Value (million $)	200	171	164
Paper and paperboard			
Volume (000 tonnes)	298	282	300
Value (million $)	218	161	169
Imports			
Total value (million $)	240	154	154
Sawn timber			
Volume (000 tonnes)	38	25	30
Value (million $)	25	15	16
Paper and paperboard			
Volume (000 tonnes)	74	58	53
Value (million $)	164	103	99

Notes:
The proportion of exports by value were Australia (34 percent), Japan (22 percent) and others (44 percent).

The decline in log exports was due to a combination of the tight supply situation in New Zealand and less favourable market conditions in our main markets (Japan, Korea and China). Sawn timber exports to Japan were also down substantially, but this was balanced by a buoyant Australian market.

Imports of timber and paper reflect increased economic growth in New Zealand. New dwelling completions were 23 percent up on 1983. In spite of falling or steady volumes exported, the values increased because of the buoyant Australian market and the devaluation of the New Zealand dollar in July 1984.

1. FOREST MANAGEMENT, DEPUTY DIRECTOR-GENERAL A. K. FAMILTON

PRODUCTION FORESTRY—GENERAL

POLICY

Plantation Management Policy for Radiata Pine A new policy document on radiata pine is nearing completion. It defines policy, objectives, and guidelines for the commercial management of State plantations. The policy incorporates major research findings that herald important gains in terms of cost-effectiveness in management operations and improvements in wood quality. It forms the policy basis for the Silvicultural Review.

Silvicultural Review A national review of *Pinus radiata* silviculture has been undertaken to determine optimum management regimes in the light of current research. These regimes will reflect improvements in the timing and intensity of silviculture operations and will result in significant improvement in the quality and value of the future wood resource.

Review of 1986/87 New Planting and Restocking Programmes The Forest Service was instructed at the year's end to undertake a review of the economics of all new planting and restocking planned for 1986–87. This requirement is part of the move towards a more commercial approach to plantation forestry. A project team has determined methodology and the review is under way.

Workshop on Douglas Fir A workshop was held to update current knowledge of this species and to discuss a draft management policy. Douglas fir comprises 10 percent of the State planted area. However, much of this forest is on sites climatically unsuited to the

species or where the Swiss needle cast disease reduces the growth rate. Studies in the past have shown Douglas fir to be less economic to grow than radiata pine, but recent economic analyses by the Forest Research Institute are more encouraging for a future role for the species. When completed the studies will be important in finalising a Douglas fir policy. It is clear that any future planting must be on carefully selected sites and subject to economic evaluation.

Nursery Rationalisation Reduced national tree-stock requirements are resulting from lower initial stocking and reduced new planting areas. To avoid retaining excess nursery capacity with resultant costs, nursery rationalisation is being considered. Vegetative propagation offers a means of making best use of genetic improvements in *Pinus radiata* and is being tested operationally in all nurseries.

Forest Grazing Forest grazing offers benefits such as improved access, weed control, reduced fire risk, improved tree growth and early revenue flows, and the potential to improve the profitability of plantation management. Current grazing licences cover some 65 000 ha and estimates indicate that some 184 000 ha could be available. The Forest Service has taken initiatives to liaise and co-ordinate projects with Ministry of Agriculture and Fisheries, the Department of Lands and Survey, and the Department of Scientific and Industrial Research to ensure that forest grazing proceeds in a planned and controlled manner, allowing time to build up stock numbers, gain knowledge and expertise, and quantify more precisely the costs and benefits associated with this combined land use.

Harvesting and Marketing Strategy The first stage in the development of a harvesting and marketing strategy incorporating all exotic State forests is almost complete. The strategy will define the extent and quality of the significant State wood resources coming on stream up to the end of this century and plan for their orderly marketing and harvesting and also provide industry, local authorities and other interested parties with schedules of State wood availability by time, location, quality and quantity. The strategy is intended to promote discussion with these bodies on the impact of increased wood availability.

When complete the draft will be made available to industry and revised annually. An initial exposure was made at the New Zealand Timber Industry Federation's February 1985 seminar.

Kauri Policy Kauri forest areas within State forests are currently managed in accordance with the policy approved by Government in 1973. As it was considered that the policy did not adequately reflect and accommodate the diverse and increasing range of demands now being placed on the State kauri forests, a revised policy was prepared after extensive public consultation.

There are some significant differences between the draft revised policy and its predecessor. Protective, scientific, recreational and tourism values of kauri forests are given elevated status and are now clearly the principal concerns of kauri forest management. Perhaps the most noteworthy policy change is the termination of the felling of living mature kauri for timber production, thus formally ending an activity which has taken place almost continuously for two centuries. The revised policy permits the felling of living mature trees only for nationally important purposes, with the approval of the Minister of Forests.

Salvage of Indigenous Timber In accordance with the Government's environmental policy for native forests, a new management strategy for Whirinaki Forest Park has been approved. This provides that there will be no further felling of indigenous trees, with the exception of some dead standing totara to provide for Maori cultural projects. Removal of naturally fallen trees will be permitted only by means which do not disturb the surrounding forest, and only if and where approved by the forest park advisory committee. Use of conventional logging machinery is prohibited for such removal of fallen trees.

Other features of the management strategy include a rezoning of all production areas into non-production categories, and the placing of all remaining virgin high density podocarp areas into ecological areas, in keeping with the broad objective to preserve the untouched areas of the forest, and to rehabilitate areas subject to modification by logging and roading.

PERFORMANCE

Work is under way to improve financial management reporting systems, including the development of performance measures related to commercial rate of return. In the interim, the following tables give some measure of accomplishment and cost:

Establishment and Management Establishment and management of plantation resources, which covers all tree crop operations involved with plantation establishment and tending, accounted for $61,801,000 over 247 866 hectares. The major expenditure items were site preparation for new planting, and pruning and thinning.

	Financial Programme ($000)			Physical Programme (ha)			Direct cost per hectare		
Operational Category	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%
Preparation for new planting	8 627	8 773	101	47 184	36 139	77	183	242	132
Preparation for restocking . .	2 512	2 447	100	14 071	13 903	99	179	176	98
New planting . .	4 606	4 370	95	21 462	20 165	94	213	217	102
Restocking . .	1 589	1 799	113	8 629	9 297	107	184	194	105
Ancillary establishment . .	5 500	5 054	92	35 568	33 993	96	155	149	96
Pruning	19 415	17 213	89	78 070	73 553	94	249	234	94
Thinning	7 348	6 218	85	58 528	47 109	80	126	132	105
Fertilising	3 352	2 838	85	17 525	13 707	78	191	207	108
Subtotal	52 949	48 712	92						
*Other	10 875	13 089	120						
TOTAL	63 824	61 801	97	281 037	247 866	88			

*Other refers to expenditure for which there is no clearly defined physical programme, covering protection, research, nurseries, etc.

Harvesting and Marketing Harvesting and marketing operations provided a revenue of $88.5 million at a direct expenditure of $28 million which represented a realisation of 116 percent of budgeted expectation.

Category	Budget	$/m³	Actual	$/m³	% Actual Budget
Volume (000 m³) . .	5,046		4,662		92.4
Expenditure ($000) . .	35,337	7.0	27,927	6.0	79.0
Revenue ($000)	87,306	17.3	88,434	19.0	101.3
Net Revenue ($000) . .	51,969	10.3	60,507	13.0	116.4

Indirect Costs in the Production Programme To better identify and thus reduce indirect costs in 1985–86 moves are being made to allocate indirect costs, for example, draughting services and EDP, to operations. Currently general and engineering services represent 32 percent of operational expenditure.

Category	*Budget ($000)*	*Actual ($000)*	*%*
Engineering Services	18,031.4	16,741.5	92.8
General Services	14,524.3	16,062.1	110.6

Planting Programme The total area approved for planting in the 1984–85 year was 22 490 ha, comprising a basic programme of 16 000 ha and an additional planting programme of 6490 ha. The latter target was subsequently adjusted to 5046 ha due to inability to secure suitable land for this programme in some regions. By the end of the planting season, a total area of 20 165 ha had been achieved, a shortfall on the adjusted allocation of 881 ha. A strategic planning exercise outlining a five-year planting programme is to be submitted for Government endorsement. A reduction in new planting is probable given the economic and environmental constraints currently limiting the availability of suitable land for commercial plantation establishment.

Indigenous Production Continuation of the prescriptions embodied in the Indigenous Forest Policy have seen a continued decline in the production of native timber from State forest. Production from North Island forests has been reduced by 94 percent over a period of 9 years (from 103 000 m^3 in 1975 to 6000 m^3 in 1984).

Over this period the relative production of State and privately-owned indigenous forest has changed significantly. In 1975 indigenous timber production from State forests comprised 64 percent of the total North Island supply while in 1984 it made up only 17 percent of the total production. Indigenous timber production from South Island State forests has also declined over this period, from 140 000 m^3 in 1977 to 81 000 m^3 in 1984, a reduction of 42 percent.

LAND

It has been the objective of the department to acquire sufficient suitable land to ensure that existing approved new planting programmes in each planning region can proceed without interruption and with adequate lead time for land preparation.

The following table shows the areas needed to provide a two-year land bank in each region, the areas actually purchased in each region for production plantation and the total expenditure on land purchase region by region. In some regions, particularly Northland, Auckland, Coromandel, Taranaki, Wairarapa and Manawatu/Wanganui and North Canterbury, land banks are severely depleted and are unable to sustain new planting programmes at the same level as 1985. In addition to land for new planting the Forest Service purchased 24 308 hectares at a cost of $673,000 for environmental forestry purposes.

Region	*Minimum area required to provide 2 yrs planting at 1984 programme levels (ha)*	*Area acquired 1984–85 ha*	*Purchase Price $*	*Average Price per hectare $*
Northland	2362	1177	675,426	574
Coromandel	1280	266	150,400	565
King Country	–	–		
Auckland	600	–	–	
Rotorua	–	–		
East Coast	3180	3166	1,306,145	413
Taupo	–	–		
Taranaki	720	–	–	–
Hawkes Bay	1554	1359	941,500	693
Manawatu/Wanganui	1452	469	270,000	576
Wairarapa	2400	409	197,511	483
Tongariro	–	–	–	
Nelson	1470	1172	193,550	165
Marlborough	1866	1214	398,500	328
Buller	–	–	–	
Nth Westland	–	–	–	
Sth Westland	–	–	–	
Nth Canterbury	600	16	10,000	625
Sth Canterbury	1180	1274	800,000	628
Southland	–	2353	937,619	398
Otago	660	744	571,900	768
TOTAL		13 619	6,452,551	

FIRE CONTROL

An interim central fire fighting fund for the 1984–85 fire season was established, to assist county fire authorities with the costs of fighting fires of unknown causes or from permit burns.

A total of 163 forest fires were fought by Forest Service crews—135 were in or around State forests, the remainder in National Park, Scenic Reserve or UCL. Of about 1350 ha of burnt vegetation, 9 ha composed mature indigenous forest and 39 ha exotic forest. Costs amounted to $194,000 for State forests and $76,000 for other State areas; useful rain at critical times led to savings in budget of $222,500. Carelessness by people using picnic and camp fires, matches and cigarettes represents the major cause of fires.

The Forest and Rural Fires Act and Regulations have been in force since 1979. Some changes are now required, especially in the areas of interpretation of State land, the imposition of levies, clarification of the powers of a rural fire officer and details of regulations.

T. R. CUTLER, Director Forest Management.

PRODUCTION FORESTRY—MARKETING

Introduction Roundwood removals for the year ending 31 March 1985 increased by 10 percent on removals for the previous year, totalling 4.8 million cubic metres. About 95 percent was wood from plantation sources and the balance indigenous supplies. Total roundwood removals from all sources on average recently has been about 9.5 million cubic metres annually, of which the State's contribution has been about half. It is expected that this relationship of State and private supplies will be maintained in the future as the expanded plantings of the 1960s come on stream.

Pricing Policy for State Exotic Wood The policy for the sale of State exotic wood has been reviewed on a number of occasions in recent years. The foundation of the present policy lies in the 1972 Forestry Development Council "Report of Stumpages Working Party" which defined the principles upon which stumpage, terms and conditions of sales, revaluation procedures and arbitration should be based.

In 1981 the New Zealand Forestry Conference convened a working party to consider the foregoing policy in the light of existing circumstances and future expectations. This led to the presentation of the "Report of the Working Party on the Sale of State Wood" to the Conference. Based on the report, the Forestry Council submitted a number of recommendations to the then Minister of Forests which, with one exception, were approved with effect from 1 January 1982.

In his presentation of the budget on 8 November 1984, the Minister of Finance, the Hon. R. O. Douglas, commenting on resource allocation for growth and employment, noted that the same commercial applications in pricing of capital and other resources that applied in the private sector were also relevant for similar State operations. He went on to comment that the Government was moving to ensure that State-owned enterprises would be operated on a basis comparable to that of other enterprises in order to provide a reasonable return on the substantial resources they used. He added that only if resources were realistically priced, could it be ensured that investment and employment decisions yielded the greatest benefits.

Government has therefore set a pricing policy for the sale of wood from State plantations that aims to achieve revenues within five years comparable to those obtained by the private sector. Future prices for State wood resources will therefore be based on the best available markets (including log exports) in the expectation that such a sales policy will secure sufficient revenues to recover growing costs plus a commercial rate of return on capital investment. Decisions on future allocations of State wood resources will be based on these commercial principles.

The criteria which will be applied to pricing decisions are:

- The domestic market is to be favoured where uncommitted wood is available and where no (pricing) preference exists between sales on the domestic and export markets;
- The Forest Service may still favour a particular market for strategic reasons even though other markets may be more attractive in the short term (i.e., with particular reference to log exports); and
- The Forest Service is to base decisions on sale terms and conditions (including pricing and allocation) for both existing and future sales primarily on commercial criteria. In the past, decisions on wood allocation have taken strong account of effects on regional development, social and employment opportunities, added-value processing, and maintenance of industrial infrastructure. These considerations may still receive recognition subject to initial screening of tenders or proposals for commercial acceptability.

It was announced in the 1984 Budget (p. 9) that:

> "The prices of State exotic wood in all sales will be aligned within five years to current market values as revealed by sales both throughout New Zealand and offshore. Where reasonable competitive market prices cannot be established prices will be set taking into account the replacement cost of the wood".

This alignment of prices was to be achieved in two stages. The first stage requires prices in long-term contracts to be brought up to the weighted average of prices realised in recent contracts for each grade and region at 1 April 1985 (at time of writing this exercise had commenced). The second stage requires that by 1990, replacement costs are to be "the benchmark" as the minimum acceptable price for both short and long-term sales (work is under way to define, by the end of 1985, the appropriate replacement costs referred to).

In summary the main implications of the new pricing policy are:

- market forces, as far as practicable, will continue to be used for price determination with the objective of achieving, as a minimum, replacement costs for each log grade by 1990;
- there should be a progressive move in prices between now and 1990 to achieve this objective;
- negotiated reviews under long-term sales will be undertaken more frequently and will be based primarily on current market prices achieved under short-term sales and log exports;
- for this purpose the volume of wood retained for short term sales and for log exports will constitute a reasonable component of the total available resource in any region;
- in the absence of market force criteria for price determination, replacement costs will become the parameter for price determination by 1990.
- The powers of the Minister of Forests relating to State exotic woods sales have been delegated to the Director-General of Forests in conjunction with the Secretary to the Treasury.

Industry Liaison Both general and detailed discussion has taken place during the year with the NZ Timber Industry Federation. The Director-General gave Forest Service views on the Federation's draft strategy to its annual general meeting. Several times during the year the Federation on behalf of industry, made representations to the Forest Service concerning methods and procedures for allocations of wood currently being offered in North Auckland, South Auckland, the Bay of Plenty, Hawkes Bay, Nelson and Otago regions. The representations, referred for Forest Service consideration, made certain recommendations as a guide for Timber Industry Federation members to frame tenders, as well as a basis for the Forest Service to make allocations. They considered such issues as:

- the imposition of a volume ceiling on potential applicants;
- the allocation of wood to new entrants and the implications of this on present buyers;
- custom sawmilling;

- the impact of new primary processing capacity in the situation of a tight wood supply;
- the proportion of the total wood available that was advertised for sale to that held back for later short-term tender.

While absolute resolution of all issues was not possible, constructive discussion on those of importance to the department and industry were very worthwhile and resulted in creation of an informal joint working party to consider and resolve issues of mutual concern.

Log Exports The Forest Service has exported logs since 1964, initially to market large volumes salvaged from windthrow at Eyrewell Forest. The trade was sustained during the 1960s and 1970s by occasional storm damage, but more particularly by the availability of wood surplus to local processing requirements, and the need for correction of an age class imbalance in the Central North Island forests.

Continuation of the trade has been addressed on a number of occasions in recent years. In 1975 the Forestry Development Conference reviewed the situation and recommended that the Government pursue a policy of allocating a portion of the cut from State exotic forests to maintain the log export trade at a viable level. The 1981 New Zealand Forestry Conference also considered the matter and recommended the continuation of log exports to maximise returns to the small grower and to keep future log export options open.

The continuation of log exports from State forests was further reviewed by the Minister of Forests towards the end of 1984, with particular regard to the tight resource situation in the Central North Island and the fact that the level of supply was likely to be insufficient to satisfy the requirements of those seeking supplies for local processing. It was agreed that exports would continue through to 1987, when there would be a further review of the situation coinciding with a major transition from one crop type to another in the Bay of Plenty region, and in the light of resource data then available. The Minister approved the export of 80 000 cubic metres annually through Mount Maunganui, and other sales through South Island ports (not expected to exceed 50 000 cubic metres annually).

The adoption of the new pricing policy (referred to earlier) has focused further attention on log exports. Arising from this new policy log exports might now assume a higher profile than in the immediate past. In particular:

- it has been recognised as being desirable to continue a flow of unprocessed logs into export markets;
- log exports will be considered if domestic prices do not at least match replacement growing costs;

- a significant proportion of the total State resource will be marketed as short-term sales and/or log exports, and such prices will assume greater importance in setting and reviewing prices in the future;
- after 1985 log export prices will be included in the "basket" for the appropriate grades of logs to re-negotiate long-term sales prices; and
- the volume of logs exported by the Forest Service will be decided on commercial grounds and will not be fixed as in the past by Ministerial approval.

Pricing Policy for Indigenous Timber In 1984 Mr V. R. Ward, then Deputy Government Printer, Government Printing Office, was seconded to the Forest Service to review the pricing policy for indigenous timber. His brief was to consider:

- what form of pricing was now appropriate for the sale of State indigenous timber;
- if the "residual value" approach was retained, whether the current pricing formula could be improved and if so in what areas; or
- if an alternative pricing mechanism was favoured, the details of how it would work.

Mr Ward concluded that the present "residual value" method of stumpage determination was no longer valid in today's economic climate as it did not take into account the true costs of production. Also no allowance was made for the intrinsic value of indigenous timbers, and no account was taken of any rate of return on investment. He made a number of recommendations, including one that the present method be phased out in favour of a form which reflected true market values. The report is a valuable contribution in assisting the department to assess its indigenous forest management objectives in the light of present-day Government policy.

R. F. Cooper, Director Marketing.

ENVIRONMENTAL FORESTRY

WILD ANIMAL CONTROL

Game Recovery Licensing Continuing high prices for live deer has brought pressure on the Forest Service to issue more licences for commercial helicopter recovery. Deer control requirements do not need additional helicopter effort, and recreational hunters have been vocal in requesting a decrease in helicopter hunting, and an increase in surveillance of aerial trespass hunting in Recreational

Hunting Areas (RHAs). The balancing of these demands, as required under the Wild Animal Control Act 1977, is not a simple matter. A recent development which has added further problems has been a dramatic increase in prices paid for feral goats. Applications for new helicopter recovery licences for goat recovery have been resisted as none of the operators of the currently 67 licensed helicopters is able or willing to operate solely on goats. Experience has shown that if licences are issued for a restricted land area, or are restricted as to the species of wild animal that can be recovered, then inevitably operations become less viable. The time is thus opportune for persons and organisations relying on wild animals for their recreation or livelihood, or who have wild animal control and land management responsibilities, to decide if there is a more equitable and acceptable means of allocating the available wild animal resource under some form of management.

Animal Control The year has been notable for several "firsts". In the Wakatipu and North-west Nelson RHAs the decision was made to ban the shooting of female fallow deer, and have an antlered male only management programme on a trial basis. A national meeting to discuss the future status of tahr as a wild animal in New Zealand was held in October 1984. Subsequent submissions are now being analysed and a draft management policy will be offered for public comment shortly. Sambar deer have been captured in an area where they were a nuisance on farms and successfully relocated in Waiotapu RHA, over 400 kilometres away. This followed a small scale trial when a few sambar were captured on farms and released in Santoft Forest.

A wild animal control plan covering Fiordland National Park was approved by the Minister of Forests on 31 May 1984. It contains special provisions relating to wapiti as well as other wild animals in the park.

Three-year possum eradication trials were commenced on Codfish Island (near Stewart Island) and Kapiti Island. Codfish Island is the only remaining island suitable for relocation of the rare kakapo if feral cat control operations on Stewart Island prove ineffective. Kapiti Island, already an important nature reserve containing transferred rare and endangered species, could receive more birds if possums were eliminated. The finding of kakapo in North-West Nelson State Forest Park is of special interest.

A new Forest Service machine for processing carrot bait and both toxic and non-toxic cereal based pellets for possum poisoning was successfully tested in bovine tuberculosis eradication operations.

Raoul Island Goat Eradication Goats were introduced to the 3000 hectare Raoul Island in the Kermadec Group in the 1830s as

a source of food for castaways. When the island was made a flora and fauna reserve in 1934, weather station staff on the island were encouraged to shoot the goats. In 1956, when the Forest Service assumed control of wild animals, a hunting party accounted for 1400 goats. Logistical and financial problems prevented further control measures on the island until 1972. Since then steadily increasing hunting pressure and the introduction of new control methods brought the population to such a low level that a final effort was considered warranted to eradicate the goats entirely. What were thought to be the last two goats on the island were shot in November 1984.

Although reasonably confident of total success, Ministry of Transport weather station staff and Department of Lands and Survey exotic weed control staff will watch for goat signs during the coming year. If necessary, another Forest Service hunting party with dogs will be sent to kill any survivors. While it has been a costly exercise, any lesser effort would only have prolonged the operation. It is present Forest Service policy to eradicate goat populations where feasible, and where there is priority to prevent damage. The Raoul Island experience provides an encouraging example of effective, efficient and successful animal control operations.

PROTECTION, RECREATION AND AMENITY IN STATE FORESTS

Soil and Water Protection Ongoing efforts have been made to rationalise boundaries of State forest around the Ruahine Ranges, to afford protection to remnant privately-owned forest lands whose potential use (timber harvest and clearance for farmland) aroused community concern. This programme complements the expenditure on re-establishment of eroded land in headwater areas in the range, and the control of wild animals; all three consolidate and enhance the major function of the range's forests, to protect the valuable production lowlands.

The desire of the local community, here and elsewhere, to achieve forest protection both for its own sake and to maintain soil and water values, outstrips the availability of Central Government's funds for the purpose; alternative mechanisms, such as convenants under the QEII National Trust, and the possibility of rate relief are being increasingly pursued.

Protected Area Management The proposals for establishment of ecological areas (dedicated for the protection of scientific values of forests) made by the now disestablished State Forest Scientific Reserve Advisory Committee have been systematically pursued. This work is slowed by the requirements for survey in difficult country

prior to gazettal of the areas. The former committee, which covered State forest only is being replaced by a new Protected Areas Scientific Advisory Committee with a similar independent status but covering all lands of the Crown administered by the NZ Forest Service and the Department of Lands and Survey. Through the National Parks and Reserves Authority and the Protected Natural Areas programme this committee will also play a part in the determination of requirements for reservation of land not already in Crown ownership.

The various systems for preserving land and creating a truly representative natural areas system will thus be fully co-ordinated.

The Forest Service purchased 24 055 hectares of native forest from Taitapu Estate Ltd to add to North-west Nelson State Forest Park. Logging rights have been cancelled and there will be no further logging of the area which scientific surveys have shown to be particularly valuable from an ecological viewpoint. More than 16 000 hectares is virgin forest and the remainder is a mixture of tussock and swamp vegetation and some cutover forest which is regenerating. This is the largest single purchase of private land for non-production use by the Forest Service.

Work has begun on a history of forests and forestry in New Zealand as a sesquicentennial project. The editor will be Dr Michael Roche whose own contribution will focus on the European influence on New Zealand's forests.

A systematic programme for identifying, selecting and preserving, maintaining and interpreting historic features in State forests has been initiated. Archaeological sites are also recorded for scientific and cultural purposes, especially in the Auckland region. The Service now employs an historian to co-ordinate the work, which encompasses both European and Maori historical and archaeological features.

Recreation Two new forest parks have been created, in Whirinaki and Northland.

The establishment of Whirinaki Forest Park provides for a public input into the management of the forest, whose unique podocarp stands were recognised in Government's pre-election manifesto. The creation of a Northland Park emphasizes the potential contribution to an increasing tourist industry which can be made possible by the appropriate integrated management of the now scattered remaining kauri dominated forests.

The development of recreational facilities throughout the country is constrained by financial pressures. The resources provided in State forest and other lands of the Crown have been free but the demand for these resources is increasing rapidly, and they can no longer be satisfactorily managed on a fixed budget; the consequence of this

will be greater impact on the resources and less satisfaction for the users. The Forest Service believes that the management of State forest to meet tourist demand is entirely appropriate, and it is developing the capacity to satisfy the demand. The concept of user-pays is being introduced for many facilities when users can be practicably identified.

In line with the department's move to corporate structure and planning, a programme has been developed to ensure that long-term recreation development by the Forest Service and concessionaires is compatible with both regional and national needs. The first stage is an inventory and prescription to use on forests for work programming and financial budgeting, and this will be implemented in all conservancies over the next two years.

The 1984–85 summer was exceptionally fine and many people took advantage of the summer programmes run in a number of forests. The nature walks and talks on Maori foods and medicinal use of plants were very popular.

The Forest Service has developed an avalanche warning system for the Craigieburn skifield. It will be used again next season to help protect the increasing number of skiers and other visitors to the field.

Two map guides were produced for public use: Rimutaka-Haurangi and Ruahine. The pilot copies of the four-part "Man-made Forests" booklets on plantation forests, for use in both primary and secondary schools, were well-received by the schools. Suggestions have been incorporated and revisions made, and they are ready for final production.

A new venture was the production of a tourist-oriented video, in co-operation with the Railways Corporation and Lands and Survey Department, focusing on places to visit and things to do around the South Island. It was made initially for showing on south-bound Cook Strait ferries, but copies are also being used in information centres in both islands.

A joint-venture information centre at Turangi, with input from local sources and Government departments is now completed. Forest Service displays cover the production forests of the area as well as the Kaimanawa Forest Park.

The department gave donations or technical assistance to various bodies active in the outdoor recreation field. Two of the recipients were the Mountain Safety Council who were given donations towards the production of posters, and the Outdoor Recreation Information Centre in Christchurch who were given assistance with the establishment and running of the organisation.

K. H. Miers, Director Environmental Forestry.

ENGINEERING

1. Civil Engineering

1.1 *Roading*

The construction of roads to provide access for new planting and log harvesting is a significant component of the costs involved in forestry. To enable decisions to be made on an economic basis, the planning of the roading development for each forest project is now required to include total costs estimated for the full term of establishment or harvesting of the forest. Procedures for formal evaluation of these projects have been developed in consultation with Forest Management and Marketing Divisions and their use has provided an improved basis for the assessment and allocation of resources to these projects.

During the year, $8.8 m was expended on new roading construction, and a further $11 m was required to maintain the existing forest roading network. Significant progress has been achieved as a result of this expenditure, particular in the Aupouri, East Coast and Hawke's Bay Forests.

1.2 *Architecture*

During 1984–85 the purchase, construction, upgrading and recommissioning of facilities and buildings has progressed well at many of the forest headquarters. Achievements with the new complexes at Ruatoria and Motueka are particularly satisfying. An office/information centre for the North-west Nelson Forest Park is at present under construction, while at Kauaeranga a lecture facility is being created for the Coromandel Forest Park. Tenders have also been called for the turbine house which is part of the new energy complex at the Waipa Sawmill. The introduction of the Department's new computer facilities required suitable building installations which were provided at Rotorua, Wellington and Christchurch.

Capital expenditure of $3.5 m was recorded during the year, while maintenance of the department's 4626 buildings cost $3.8 m for the same period.

1.3 *Surveying*

Consideration of the future provision of survey services to the department has been under review and the views of both existing survey staff and management have been ascertained. The possibility of obtaining these services from Lands and Survey Department has been examined.

The New Zealand Forest Service Register provides an up to date record of all land owned and administered by the department. To improve the efficiency and effectiveness of the system it is being

computerised. Seventy percent of the New Zealand Forest Service Forest Register has now been computerised.

2. **Electrical Engineering (Telecommunications)**

In response to requests from private forest industries, a proposal for a National Forest Industries Communications Plan was formulated during 1983 and has been formally submitted to the New Zealand Post Office. Its objective is to rationalise the allocation of land mobile radio frequencies to forest industries to provide for common channels for use in fire emergencies and similar situations. The department's policy guidelines for communications support to Civil Defence have been redrafted in line with the requirements of the Civil Defence Act and draft National Civil Defence Communications Plan. The department's resources will prove to be of major support to Civil Defence in the event of a national emergency.

Studies of the Forest Service/Lands and Survey radio communications requirements in the Coromandel, Marlborough and Nelson regions show a strong degree of commonality. This lends weight to the philosophy of integrated communications systems reducing overall costs by increasing utilisation.

The progressive replacement of VHF (AM) radio equipment by VHF (FM) equipment as the former reaches the end of its economic life is continuing on schedule. Conversion of Auckland Conservancy during 1986 will complete the conversion of the North Island.

The design and installation of the Data Communications Network, (principally to support remote terminals to the computer system) has been completed. This will also now facilitate improvements in methods of data collection, particularly in the areas of timber volumes for harvest and sale and fire weather data analysis. At the forest level, radio channels or tenuous line communications will continue to provide the only practicable bearer circuits for a number of years to come and techniques for effectively utilising these are being closely monitored.

Capital Expenditure on telecommunication assets amounted to $786,000.

3. **Mechanical Engineering**

3.1 *Mechanical Design Services*

New Zealand Forest Service specialist design expertise was supplied to various organisations during the year. The Sawmills Section assisted Commercial Division in their modernisation programme, consultant design services were made available to the Agricultural Pests Destruction Coucil to reorganise their Wanganui and Waimate Poison factories, a timber drying kiln was designed for the bilateral aid programme in Papua New Guinea, and design services were

provided for an energy management system for the Forest Research Institute. Much effort was also put into representing the department's case for an extension of the Forest Research Institute geothermal water right. This was successful with the Planning Tribunal hearing extending the water right allowing draw-off of geothermal steam until 1988.

3.2 *Waipa Sawmill and Power Generation Project*

Good progress has been achieved on the Waipa Sawmill boiler and power generation project, the largest mechanical engineering project undertaken by the department. The foundations for the boiler and the turbo-alternator have been designed and constructed and the design of the remainder of the civil engineering work has been completed. The next few months will see the boiler and its ancillaries being erected on site and construction of the power house commenced. Commissioning date is forecast as early 1986. The project aims to use waste bark, sawdust and solid wood from the sawmill's operations to make the sawmill energy self sufficient with respect to electricity and steam production for timber drying and preservation. The project utilises the cogeneration cycle system for maximising efficiency and may be a forerunner of many such projects throughout New Zealand industry.

3.3 *Plant and Vehicles*

The condition of the department's light vehicle fleet has improved measurably with the Government's four year vehicle replacement programme. Maintenance costs and workloads have been reduced and as a result staffing levels in the department's mechanical workshops have been reduced with consequent savings in costs.

Heavy vehicles and plant are still replaced after 10 years. This is not considered the most economic replacement age and the department intends to carry out studies to justify this view.

Expenditure on plant and vehicles amounted to $7,028,000 during the year. Careful monitoring of costs and workshop work levels has resulted in improved efficiency in mechanical workshops, whose services have been charged directly to operations and clients so as to ensure a full cost recovery.

4. Charging for Services

In line with other departmental initiatives to improve commercial practices and attitudes, a policy has been established of progressively examining internal servicing costs and where possible recouping such costs from the operations directly benefiting from the service. All Head Office design and draughting services and several conservancy service units will directly charge for their services. It is expected that the steps being taken will result in improved efficiency within the

service units concerned as well as more effective utilisation of these services by the forestry operations who are paying for them.

A. F. STACEY, Director Engineering.

2. CORPORATE AND FORESTRY SERVICES— DEPUTY DIRECTOR-GENERAL M. K. BURNS

CORPORATE SERVICES

This directorate was formed during the year from the previous Administration Division. A major re-organisation proposal to establish the Corporate Services Directorate was placed before the State Services Commission in November 1984. Its aim was to provide under a Chief Director Corporate Services four major divisional functions within the directorate i.e. Finance, EDP, Management Support and Personnel and Administration. The SSC have approved the establishment and structure for the first three divisions but are still investigating the structure for a Personnel and Administration division. While the Finance and EDP Directors have been appointed senior staff for the management support and personnel and administration directorates will not be appointed until mid-1985. Once in place however they will allow for a much more purposeful direction to these key servicing responsibilities.

Personnel and Administration The proposals currently before the State Services Commission are aimed at formally establishing these functions within a division of Corporate Services. Having a departmental staff of 2997 and a wage worker force of 4686 at 31 March 1985, requires constant attention to the standard of personnel services throughout the department. To ensure that the identification of staff resources is clearly related to activity priorities a comprehensive decentralisation of the staff ceiling to local managers is planned for 1 April 1985. The restructuring exercise for the field occupational classes of the department, commenced in 1980, was substantially advanced in 1984–85 by two working parties who have planned the structure and positions necessary from forest to Head Office level. It is the objective to enter negotiations through the SSC with the union (PSA) in late 1985 and have the new organisation and associated occupational class in place by April 1986.

While the department's normal diverse training functions continued throughout 1984–85 particular emphasis was placed on extending the forest skills training programme of the Logging and Forest Industry Training Board to all conservancies. In addition the department has put in place a computerised training records system for all staff. This will give ready access to an individual's training record as well as allow integration of information with the career

path planning programmes. In 1985–86 effort will be concentrated on developing logging and harvesting training programmes to ensure that adequately trained staff are in place for the upsurge in harvesting activity in the 1990's.

The Timber Industry Training Centre has been in existence for 20 years; with industry co-operation it is planned to undertake a complete review of its objectives and financing in 1985–86.

The department's ability to effectively communicate with the public is in obvious need of strengthening. The Forest Service has a very good record with its annual fire publicity and in producing quality books and handbooks on forestry, and these were added to during the year by the production of a book on New Zealand beeches. In an endeavour to gain a better appreciation of the public's perception of the Forest Service the department has engaged a firm of survey specialists to undertake a national sample public survey which should provide sound information to allow a more accurate direction in the department's public relations effort.

Management Support Division This Division was established during the year under review with two major objectives:

(a) To assist management with regular reviews of existing policies and procedures and to undertake special projects.

(b) To undertake and co-ordinate the internal audit function within the department.

Major reviews completed by existing management support officers during the year were:

- improved log delivery docketing in Kaingaroa Forest aimed to ensure that forest produce being sold is accurately accounted for
- assisting with a review of the organisation of the research communications group at the Forest Research Institute aimed towards the group meeting more effectively its objectives of communicating research achievements to forestry practitioners.

Reviews commenced with completion targets are:

- reappraisal of the Head Office Information Services Section and conservancy public relations services to be completed by 30 June 1985
- consolidation of all departmental delegations into a manual form to be completed by 30 August 1985
- participation in the preparation of the first corporate plan for the department—documentation to be issued in June 1985

The internal audit function of the Division continues at present to be based around an office inspection group. A rolling programme of audits of all offices throughout the department is in place and a complete audit takes place approximately once every 18 months.

There are internal audit functions built into most Head Office divisions and to a lesser extent regional offices, however one of the objectives for 1985–86 will be to plan a system to co-ordinate them.

Finance Division Improved financial management has been a major objective of the department in recent years. Developments have now reached the stage where the responsibility for effective financial management has been vested directly with line directors and territorial managers to ensure the commitment essential for further improvement.

To ensure the overall objectives of financial management are achieved a Finance Division, comprising the Accounts and Financial Management Review sections of the former Administration Division, has been created in Head Office. The division is responsible for financial policy formulation and planning, management accounting, financial accounting, and financial systems development.

Establishment of the Finance Division has provided the opportunity to review the requirements for the finance organisation at all levels. In particular, consideration is being given to establishing professionally qualified accounting staff in conservancies. The Commercial Division has enjoyed this support for many years.

Systems developments during the past year have revolved around the facilities progressively becoming available through Phase I of the VAX computer network. Much improved inquiry and reporting facilities are now available, utilising PIPS and SIGMA data transferred from the Cumberland computer. The pilot Forest Management Information System has been implemented on two forests in Rotorua Conservancy. Development of this system will continue until October 1985 when it will be evaluated for national implementation.

Another important development is the introduction of a more formal corporate planning process which will document the specific objectives and resourcing needs of the department. It is proposed that this plan will become the vehicle for obtaining integrated approvals replacing the fragmented structure which currently operates.

Management reporting systems enable intra-departmental performance comparisons and work has also been going on to ensure better capability of evaluating commercial performance against equivalent private sector enterprises. An industry working party has prepared a proposal for forestry accounting which is currently being considered for implementation by all the major growers. The department has also participated in the development of a draft Public Sector Accounting Standard recently issued by the New Zealand Society of Accountants. This draft standard reflects the need to report appropriately for both commercial and non-commercial functions.

A performance measurement system is being developed to monitor the return on investment on exotic production forests. The measurement system requires annual revaluation of each forest to ensure provision is made for forest increments and decrements. A national revaluation has been done annually since 1981.

EDP Division The Forest Service was authorised in late 1982 to establish its own integrated information processing facility. A major contract to implement the first phase of this was signed in November 1983. Five of the six computer processors to be purchased have been installed and the last is due to arrive in April. About 160 terminals and 70 printers have been connected to the network which now serves all conservancy and district offices, the two research institutes and Head Office. Further sites will be added during the coming year. A connection has also been provided to the Government computer centre at Trentham. The final terminal installations to be made this year will complete the first phase of the project.

Access has been provided through the network to departmental financial and personnel data and some technical forest management packages. A range of general purpose software including graphics, statistics and spreadsheets useful for manipulating and reporting on stored information have been installed and are being used extensively. The Trentham connection allows much wider access to packages, including the stand record system, which the department had developed prior to the installation of the network.

Major software development currently under way includes systems related to financial management, including general ledger, debtors, wages and stores, a forest management information system designed primarily to help the manager of a forest, a fleet information system and some personnel systems. The recruitment of some senior applications development staff early in 1985 will assist in speeding up this work.

The procedure for the introduction of internal charging for computer use has been developed and is to be implemented from 1 April 1985. Not only will this spread the onus for the management of the use of the computer resource out to local managers, in line with a similar trend for other resource management, but it will also help to reduce the otherwise amorphous mass of Head Office overheads along with an increased component of direct costs at the operations level, and it will more clearly identify to managers the true cost of the information processing service.

Planning has now begun for the second phase of the network, which is expected to provide terminals at most forest offices.

P. S. BYGATE, Chief Director Corporate Services.

ADVISORY SERVICES

The Advisory Services Division has now completed its first full 12 months of operation. The division provides advice to the following groups:

—Forest growers, advised by forest extension staff.
—Wood processors, users and researchers, advised by forest products extension staff.
—Exporters and importers, advised and assisted by timber inspectors, and
—Other countries developing forestry programmes, advised by the Foreign Aid section.

The advisory service is based on a comprehensive approach, from the establishment of a forest through to the marketing and use of the finished product. The main aim is to provide advice to facilitate greater efficiency in forestry and forest industries. The advice may be passed on in personal interviews, at courses and seminars, or in the form of publications. "Trees and Timber", a bulletin produced by the Forest Service, provides advice on aspects of forestry and timber utilisation.

The role of the division is being given further consideration to ensure that it meets the needs of users. A draft policy statement has been issued and discussed with a number of interest groups. Staffing in the advisory area has been reviewed and some problems have been identified.

Forest Management Extension This service is responsible for the promotion of forestry as a complementary land use by private landowners seeking to improve financial productivity and add diversity. Extension of advice on shelter plantings and agroforestry, where benefits other than timber production can also be obtained, is desirable. However, some increase in staffing would be required if the needs and potential of smaller growers were to be fully met.

Development of joint Ministry of Agriculture and Fisheries/Forest Service training courses is proceeding including an agroforestry study tour and workshop.

There is increasing interest in forestry joint ventures, although planning constraints in some areas may discourage such projects. Assistance is being given to the Forestry Council in its development of joint venture guidelines.

The revised Forestry Encouragement Grant Scheme introduced on 1 April 1983 was abolished in the 1984 Budget to be replaced with a deduction of forest costs for tax purposes. Hardship loans to relieve the financial position of growers in a low or non-tax situation are available through the Rural Banking and Finance Corporation. These loans will provide finance to meet the difference between the

growers tax deduction ability and the 45 cents in the dollar of cost previously provided by the grants scheme. Local authorities and charitable trusts have expressed concern because they believe their special circumstances have not been adequately recognised.

Both the New Zealand Tree Crops Association and the New Zealand Farm Forestry Association have expressed a need for a limited (in time or space) special purpose species incentive scheme. The need for a more active approach to special purpose species is supported by the New Zealand Furniture Manufacturers Association. Consideration may need to be given to whether some support is necessary to assist with the high costs involved in a long rotation crop, as only 55 percent of the national target is currently being achieved.

A joint departmental agroforestry policy was prepared by the New Zealand Forest Service, Department of Lands and Survey and Ministry of Agriculture and Fisheries and was approved by the respective Ministers. The policy emphasises the potential contribution agroforestry can make to land use diversification and identifies the constraints imposed by production, marketing and research requirements. It also highlights the need for departmental liaison and education along with a priority for Government demonstration to the private landowning sector.

Forest Products Extension This service provides a broad range of technical advice on the processing and use of forest produce. Extension staff provide information on timber properties, processing and suitable end use, and act as a link between growers, processors, users, and researchers.

A series of reports is being prepared comparing the New Zealand National Timber Grading Rules for sawn timber with those of selected other countries. There has been an increase in the number of grade studies conducted to test the characteristics of new crop and minor species becoming ready for sale, particularly in the North Island.

Local and national courses in various aspects of wood utilisation have been conducted as usual. This year a special course on timber utilisation was organised for staff of the Housing Corporation of New Zealand, and a joint Forest Service and NZ Timber Industry Federation course held on the Australian grading rules for radiata pine and Douglas fir sawn timber.

Work has been undertaken on the formulation and revision of a variety of New Zealand Standards in the field of wood utilisation. These include a nomenclature of commercial timbers, the Code of Practice for Specifying Timber and Wood-based Products for Use in Buildings, the National Timber Grading Rules, and the Scaffold Plank Standard.

A series of Timber Information Sheets has been compiled covering the availability of timber, properties and uses for commonly grown exotic and indigenous species of New Zealand, as well as some of the more important imported timbers. The series is being jointly published with the Building Research Association.

Contracts have been let for the study of small businesses using timber in Otago and Westland. The Otago study identified all the advisory services, such as banks and lawyers, available to these businesses. A video information package for these advisers is being produced to demonstrate through case studies the needs of successful wood-using industries.

During February a group of sixteen businessmen from the Japan 2 × 4 Home Builders Association visited New Zealand for discussions and to study the use of radiata pine in building construction in this country.

Forest Quarantine The New Zealand Forest Service administers the Forest Produce Import and Export Regulations 1966 and is responsible for the inspection and clearance of timber products leaving or arriving in the country.

Timber inspectors maintain a constant vigilance at all major ports to ensure that insects, fungi or other organisms do not get into the country and become a threat to the nation's forests and the timber industry.

The maintenance of a satisfactory standard of protection for our forests and associated industries, estimated at a conservative value of over $8 billion (without including our native forests) and rising annually by $100 million, is of paramount importance and we have reviewed the adequacy of staffing to meet this responsibility.

Liaison with Ministry of Agriculture and Fisheries on quarantine matters continued during the year with reciprocal training of staff. A joint Quarantine Working Party has been set up to investigate the improvement of sampling and inspection techniques used to clear imported containers. An upturn in off-shore trade has been maintained throughout the year, adding to problems in maintaining adequate inspections. Liaison with overseas quarantine agencies has continued, particularly with Australia. Quarantine agreements satisfactory to both New Zealand and Australia have been entered into to assist the clearing of New Zealand forest products.

A draft revision of the Forest Products Import and Export Regulations has been prepared, but because of some concerns expressed by the industry further deliberation and discussion will be required before proposals are finalised.

A detailed discussion paper reviewing the controls on the export of indigenous forest products has been prepared. The report details

practical difficulties in implementing the current policy and incorporates the views of various bodies, with options for modifying the existing policy on export restrictions for indigenous forest produce.

The training of forest quarantine officers in the Forest Service has been reviewed and quarantine subjects have been proposed as options for the New Zealand Certificate in Forestry.

Timber Preservation Authority The Authority is an independent statutory body of ten members that was first set up by the Government in 1955. The members are appointed by the Minister of Forests from nominations by trade and professional organisations representing users, specifiers and producers of treated wood, including the Forest Service. The specifications set out by the Authority are administered by the Forest Service.

Staff shortages have restricted the regular sampling programme used to maintain timber preservation quality. This has led to a review of staff and sampling procedures.

The Timber Preservation Authority and the Forest Service have reviewed their association and the Forest Service has undertaken to provide administrative services on behalf of the Authority. Responsibilities have been clarified with some changes in staff, more emphasis on financial management and greater budget participation by the Authority.

An increased retention of chemical preservatives in horticultural posts was recommended and implemented by the Authority following an investigation of early post failure and after consultation with industry.

A revision of the timber preservation specifications has been prepared during the year. The recently approved Alkyl Ammonium preservatives have been restricted in use to low hazard building situations because of premature failures discovered in moderate hazard situations.

Discussions recently held in Australia resulted in agreement on the formulation of a common timber treatment hazard rating system between Australian States and New Zealand and a willingness to move standards closer together. It is hoped this co-operation may be extended in the longer term towards at least more complementary standards with other major trading partners.

Overseas Development Assistance The Forest Service advises the Ministry of Foreign Affairs in the administration of all overseas forestry development assistance programmes. It provides co-ordination of specialist advice and resources to assist in effective project development, including staffing to provide professional guidance on projects.

One officer is engaged as South Pacific Regional Forestry Officer and as Departmental Aid Co-ordinator. Through him advice and information is provided upon request to forestry authorities in South Pacific Governments, and regional co-operation between forestry organisations in the South Pacific is promoted.

At 31 March 1985 eight departmental staff were serving on overseas development assistance assignments in Fiji, Western Samoa, Tonga, Niue, Vanuatu and on a regional ASEAN project located in the Philippines.

Twenty-three short term assignments were undertaken by specialist management, research, commercial and engineering staff during the year. These included the conducting of a regional forest management seminar in Solomon Islands, a major review of assistance to Western Samoa, continuing advice on commercial development of pine forests in Fiji, assistance to a land use seminar in Tonga, and design and evaluation of a new forestry development programme in Papua New Guinea.

Chief Forest Officer, Utilisation Adviser and Forestry Adviser, Eua, continued assisting Tonga's forest industry.

In Papua New Guinea a timber machinist remains at the Timber Industry Training Centre. New large scale reafforestation project proposals have been put forward by the Department of Forests for consideration by New Zealand.

A reappraisal by the local Government and New Zealand's Ministry of Foreign Affairs of Vanuatu's forestry project has endorsed continued assistance.

A three-man team continues to service the ASEAN afforestation project. The Zamboanga coconut processing centre is now self-supporting.

Indonesian officials have made three study tours to New Zealand.

I. G. TROTMAN, Director Advisory Services.

PLANNING SERVICES

The department has established a Planning Services Division with responsibilities for the gathering, analysis and dissemination of information on the forestry sector in New Zealand and abroad, the provision of economic, statistics, planning and landscaping services and advice to the department, the formulation of forestry economics and policy advice to Government and other agencies, and the co-ordination of forestry planning amongst Government agencies and other public bodies.

Landscape Planning During the year specialist staff have worked on projects with local managers in such diverse areas as South Westland, Waimate, Motueka, Otaki Forks, the Rimutaka

Forest Park, the Tongariro State Forest and at Conical Hill and Waipa Sawmills. Other projects with local bodies, including the development of a forestry display at the Founder's Museum in Nelson, farm forestry in Marlborough, species trials with the Canterbury Catchment Board in the Port Hills, landscape studies of forestry in the Port Hills for the Canterbury United Council and the development of the Rimutaka Incline for the Wellington Regional Authority have helped foster an appreciation of the widespread opportunities forestry offers. Landscape planners will continue to develop planning systems which help integrate the multiple values, tangible or otherwise, of forestry.

Town and Country Planning Considerable attention has been directed by the department to planning at the district level to help ensure that forestry development is not unjustifiably restricted.

Research has also been undertaken to examine the concerns held on the negative impacts of forestry development on the social and infrastructural fabric of rural communities. To date it shows little evidence to support these claims and instead suggests that forestry development plays a significant role in supporting population levels and maintaining social services.

A close liaison between conservancies and local bodies, to promote a clearer understanding of the benefits of forestry, will continue to be encouraged.

Regional planning, which has gathered momentum over the last year, appears to offer a more positive forum for discussing and planning forestry development. The department is therefore devoting greater attention to this level of planning. Two major studies evaluating forestry options have been undertaken during the year to assist the Clutha-Central Otago and Nelson Bays United Councils develop forestry policies. The response to this type of assistance has generally been very favourable and similar input to other regions is envisaged.

Better Information on Small, Private Forests A new system, providing better information on small, private forests is needed because forest extension officers no longer inspect woodlots for grant payment. A study group has prepared a draft report on the requirements of a system that will effectively and efficiently satisfy Government needs for data on the expansion, growth and harvesting of the small, private forest resource. One important early finding has been that significant savings on the aerial photography of farm land can be made by the rationalisation of such work by Government departments. The need for these records will increase as the level of private sector planting assumes greater importance and will be valuable in monitoring restocking following clearfelling.

National Forest Description A forest crop type register comprising annual area/age class distributions by county, owner, species, silvicultural type, terrain class and roading class as at 31 March 1983, has been completed and filed on computer for the New Zealand Forestry Council. Subsequently, the Council has satisfied the need for an authoritative statement on the national forest resource by publishing "A National Exotic Forest Description System" based on this work. Work to update the data to 31 March 1984 is now underway. The database will help satisfy some of the increasing demand for information on future forestry development.

Energy Planning The department has worked jointly with the Ministry of Energy in developing the 1985 Energy Plan. Consultation with the forest industry has highlighted concern over the uncertainty of future power costs; this has influenced plans for future development in the forestry sector. Increased energy prices could favour the expansion of chemical pulping capacity at the expense of paper production based on mechanical pulp.

Economics Within the department the key economic issues were concerned with evaluating the State's new planting and restocking activities, individual project evaluations of land purchase proposals, including agroforestry and joint venture proposals, and the valuation and pricing of State wood resources.

Forests are dynamic biological systems with long growing cycles. These two important characteristics, coupled with the diversity of economic issues facing forestry in New Zealand, make it difficult to undertake analysis within the traditional cost benefit and financial analysis frameworks. Departmental economists are currently developing a more relevant framework that includes strategic studies, system dynamics and risk analysis techniques and which identifies information gaps, e.g. strategic marketing information.

Economic analyses, advice and background papers were given or prepared on a number of policy issues facing the forestry sector. These included assistance with the preparation of departmental papers on changes to the Forestry Encouragement Grant Scheme, Rural Bank transition loans to small forest growers, agroforestry policy and on-shore transport costs. Background material on the economic aspects of science and technology was provided to the DSIR for a keynote paper to the Science and Technology Summit. Involvement in a Bay of Plenty Land Use Study, established by Federated Farmers in conjunction with MAF, has highlighted the need to develop analytical methods suitable for forestry and land use analysis.

Forestry was a particular issue assessed by officials and a working party evaluating West Coast port, transport and resource

development options. In anticipation of the leading sector role forestry will assume with the rapid expansion of the sector in the near future, work has been undertaken with the New Zealand Planning Council to develop a system dynamics version of MACRO, the Council's macroeconomics model of the New Zealand economy. The co-ordination of New Zealand's input into the IIASA (International Institute of Applied Systems Analaysis) project on a global forestry trade model has also continued; the work on this is expected to be wound up in mid 1985 by a final "decision-makers" meeting in Bulgaria.

The provision of advice and information on trade issues facing New Zealand's forestry sector continued to be a significant part of the division's work. The New Zealand paper on forestry trade matters for the GATT round of trade negotiations was prepared. Background material was provided to the Department of Trade and Industry for negotiations on duty free access for New Zealand forest products into Japan, in particular for small dimensional sawn timber. Currently this is subject to an 8 percent tariff whereas competing North American timbers enter Japan duty free.

Relevant economic issues have been encapsulated in a situation analysis paper which will be used as a base document for the 1985–86 departmental corporate plan. Future annual reviews will help the department initiate responses to the changing external economic environment.

J. VALENTINE, Director Planning Services.

3. COMMERCIAL—SAWMILLING

Profit The Commercial Division achieved a tax paid profit of $7.9 million for the 1984 year, a record increase of 88 percent over the previous year.

After providing for a dividend of $1.05 million based on a notional capital structure, the Division added $6.8 million to retained profits which stood at $30 million at 31 December 1984. Detailed accounts for the year ended 31 December 1984 are given in Appendix 8. A separate divisional report is also published.

Log Supply In response to Government's new policy for the sale of wood from State forests (1984 Budget) Waipa and Conical Hill sawmills paid increased prices for log supplies.

From December 1984 Conical Hill sawmill paid $38.00/cubic metre for radiata pine, $55.50 a cubic metre for Douglas fir, and $30.50/cubic metre for Corsican pine, for logs delivered to the sawmill.

In November 1984 Waipa's major log supply, radiata pine, was increased to $20.00/cubic metre stumpage. A quarter of the volume

is from steep country requiring expensive hauler logging, the costs of which are borne by the sawmill. The price for Douglas fir is $37.60 loaded on truck at the forest.

Both Conical Hill and Waipa are to have a further review of log prices soon after 1 April 1985.

Higher raw material prices, coupled with other cost increases beyond the control of Commercial Division management, necessitate more than ever a marketing policy that ensures all products are priced at full market potential if profits and returns on invested funds are to continue at satisfactory levels.

The allocation of State forest wood is insufficient to allow Waipa sawmill to operate its two shifts at maximum capacity. State forest supplies are being supplemented by tendering for privately owned logs.

Production Production of sawn timber for 1984 was 230 000 m^3, an 18.7 percent increase on the previous year. Both Conical Hill and Waipa Sawmills set new production records last year.

Sales Turnover for 1984 was $60.7 million, up 31.7 percent on the previous year. Export sales increased by $4.1 million to $19.9 million. Volumes sold at both mills exceeded production so that timber stocks were reduced.

Domestic Market The domestic market which had strengthened towards the end of 1983 remained firm throughout the year. Neither mill was able to keep up with the demand and there were shortages in almost all grades and specifications.

Australia Sales of sawn timber increased 22 percent by volume and 48 percent (to $11.6 million) by value, reflecting higher prices and the movement in the relative exchange rates of the two countries. During the year North American West Coast softwoods flooded into Australia for a period and caused a temporary slump in the market. Strengthening of the US and Canadian dollars against the Australian dollar, and the interim imposition of a 17.5 percent duty on rougher headed scantling (from September 1984) made the North American prices less attractive. The demand for Statecraft timbers now far exceeds the volume available for export to Australia.

Japan The price for New Zealand radiata timber in Japan has remained relatively constant in recent years and any improvement in value to the seller has come about largely as a result of movements in exchange rates. Exports of sawn timber, predominantly large squares, reduced 36 percent (by volume) from the previous year and 26 percent (by value) to $3.8 million.

The future Japanese market for sawn radiata pine from New Zealand presents something of a conundrum. Given the size of the Japanese timber market and the strength of the Japanese economy, that country must continue to be an important export outlet for Waipa and other New Zealand sawmills. The problem is the form in which the sawn timber is to be exported.

The bulk of the trade continues to be as large squares, sometimes referred to as "squared logs" which are further sawn in Japanese sawmills to smaller dimensions. However, Waipa is already receiving small, young radiata pine logs and, as supply moves progressively and inevitably away from old crop radiata pine (50–60 years old) and into new crop radiata pine (30 years old) reduced log size will not allow production of large squares in present volumes. Smaller squares from the younger trees would be an inappropriate product given the high quality of many of the logs, and the reduced attractiveness to Japanese buyers.

Commercial Division marketing strategy in Japan is aimed at reducing the volume of squares and compensating for this with increased volumes of sawn timber exported in sizes and grades that do not require further processing within Japan. Unfortunately, while the need for such a change is becoming increasingly urgent, progress is proving difficult and painstakingly slow.

USA A steady trade of highly processed furniture componentry into the USA with high expectations for expansion in this profitable market represents a significant export development.

Pacific Islands Sales of sawn timber and poles remained constant at $1.1 million for the year.

Capital Development To ensure that the department is equipped to take maximum advantage of the high quality but smaller dimension logs from the new crop radiata, plans are being developed to install a new small log line at Waipa. A visit by the Director and Assistant Director (Operational and Technical) to North West America and Scandinavia to assess the range of equipment most suitable for milling new crop sawlogs proved invaluable, and detailed proposals for the new log line at Waipa are now being evaluated. Major capital development at the two sawmills during 1984 were:

(a) Commencement of the new $7.1 million power and steam plant at Waipa. The project is scheduled for completion by February 1986.

(b) A new dry timber sorting complex at Conical Hill which has greatly improved the efficiency of the timber handling operations.

(c) A mechanical timber filleting machine at Waipa, built to an in-house design. The machine has provided a 35 percent increase in kiln production with no increase in manning levels.

(d) The Waipa logging unit took delivery of a $800,000 hauler from USA. The machine is the first of its kind in New Zealand and will be well suited to hauler logging of young as well as old crop radiata.

(e) A new Weinig moulding machine was installed in the new factory which commenced operations in January 1985. This represents the first stage in a planned expansion programme to service the strong demand for highly processed radiata componentry in USA and Australia, and potentially Singapore and Hong Kong.

B. H. CHILDS, Director Commercial Division.

4. RESEARCH

Research Programme The Forest Research Institute (FRI) undertakes a broad research programme based on a regular assessment of priorities in the growing, protecting, managing and harvesting of production forests and the processing and marketing of timber and other wood-based products. The research programme has a major non-commercial component including work on indigenous forest ecology and the biology and control of introduced wild animals in forests. In planning and undertaking its research programme FRI works closely with the forestry sector and co-ordinates its work with that of other research agencies. Fuller details are provided in a separate annual report, but two developments warrant comment.

Reorganisation Following the retirement of two of its divisional directors, FRI has been reorganised to further strengthen its management. The former Production Forestry Division, which was one of the largest research divisions in New Zealand, has been split into the Forest Management and Resources Division and the Forest Health and Improvement Division.

Additionally, a regional director has been appointed to co-ordinate the work of the three Rotorua-based divisions and the position of Assistant Director of Research has been established at Head Office to strengthen the management of research at the national level.

Pulp and Paper Research Partnership As from 1 April 1984, FRI and the pulp and paper companies are jointly funding a much increased level of research into pulp and paper technolgy. This is

being achieved by the injection of additional funding to expand the work of the existing pulp and paper research field at FRI. The group remains within the FRI structure but is identified as the Pulp and Paper Research Organisation of New Zealand (PAPRONZ). As a natural consequence of its financial participation, industry is taking part in the management of the programme through a joint industry/departmental Board of Management, which is advised by a Research Advisory Committee drawn principally from industry. This development is being undertaken because it is expected that the increased wood volumes available in the future will lead to significant increases in the volume and range of products. To maintain international competitiveness it is considered necessary to significantly upgrade the scope and intensity of the research support for the pulp and paper industry.

C. BASSETT, Chief Director of Research.

APPENDIX 1

AREA OF STATE FOREST LAND AT 31 MARCH 1985

(Area in hectares)

Conservancy	*Permanent State Forest*		*Total Area of State Forest Land*	*State Forest Land as a percentage of total Land Area of Conservancy*
	Ordinary	*National Endowment*		
Auckland	382 653	38 719	421 372	13.4
Rotorua	432 574	131 348	563 922	17.9
Wellington	576 840	16 499	593 339	12.4
Nelson	637 551	189 847	827 398	37.4
Westland	811 299	303 511	1 114 810	54.2
Canterbury	306 464	1 476	307 940	6.6
Southland	462 703	33 041	495 744	7.9
Total	3 610 084	714 441	4 324 525	16.5

Reservations and Withdrawals

	Hectares
Land placed under State reservation	31 918
Areas withdrawn from reservation comprised:	
for settlement	408
for national parks	3 083
for roads	1
for scenic reserves	1 644
other	2 256

APPENDIX 2

NEW AREA PLANTED IN STATE EXOTIC FOREST: BY SPECIES

(Area in hectares)

Year Ended 31 March	Radiata Pine	Douglas Fir	Eucalyptus	Other	Total
1985	17 115	1 159	626	1 410	20 310
1984	18 352	999	217	837	20 405
1983	17 022	925	470	826	19 243
1982	18 290	1 434	638	1 221	21 583
1981	14 381	699	690	916	16 686
1980	16 242	907	407	733	18 289
1979	18 871	596	452	1 765	21 684
1978	18 021	631	567	675	19 894
1977	20 793	719	396	370	22 278
1976	20 150	653	309	553	21 665
1975	19 515	795	515	204	21 029
1974	19 673	794	111	381	20 959
1973	15 792	1 107	114	346	17 359
1972	11 795	880	33	313	13 021
1971	12 674	1 435	85	544	14 738
1970	11 746	2 166	144	731	14 787
1969	10 240	2 391	80	780	13 491
1968	7 188	2 008	81	384	9 661
1967	6 159	1 664	70	695	8 588
1966	6 115	1 233	69	898	8 315
1965	5 947	1 571	82	1 075	8 675
1964	5 075	745	41	1 582	7 443

APPENDIX 3

TABLE 1

ESTABLISHMENT AND CLEAR FELLING IN STATE EXOTIC FORESTS

(a) Totals for Conservancies as at 31 March 1985

(Area in hectares)

	Operations During Year						
Conservancy	New Area Planted	Former Productive Areas Restocked by Planting	Area Clear Felled with Yield	Other Changes in Stocked Area	Stocked Area	Area Awaiting Restocking	Total Productive Area
Auckland	3 738	956	986	−552	83 228	798	84 026
Rotorua	5 614	5 595	3 621	−1 175	233 532	3 678	237 210
Wellington	3 395	652	481	−345	70 888	666	71 554
Nelson	2 452	457	350	−47	59 014	867	59 881
Westland	1 249	131	34	−113	21 780	96	21 876
Canterbury	1 113	725	446	+272	34 218	2 499	36 717
Southland	2 749	359	275	−687	63 233	275	63 508
Total	20 310	8 875	6 193	−2 647	565 893	8 879	574 772

TABLE 2

ESTABLISHMENT AND CLEAR FELLING IN STATE EXOTIC FORESTS

(b) Totals for both islands and New Zealand

(Area in hectares)

Region Year Ended 31 March	Operations During Year: New Area Planted	Former Productive Areas Restocked by Planting	Area Clear Felled with Yield	Other Changes in Stocked Area	Stocked Area	Area Awaiting Restocking	Total Productive Area
Total North Island—							
1985	12 747	7 203	5 088	−2 072	387 648	5 142	392 790
1984	13 204	6 000	5 027	−1 446	374 858	5 483	380 341
1983	12 735	7 712	4 220	−2 726	362 127	5 866	367 993
1982	13 591	7 467	6 163	−1 123	348 626	7 390	356 016
1981	10 189	8 078	6 967	−11	334 854	9 676	344 530
Total South Island—							
1985	7 563	1 672	1 105	−575	178 245	3 737	181 982
1984	7 201	2 017	1 199	−741	170 690	3 918	174 608
1983	6 508	1 808	898	−772	163 412	4 368	167 780
1982	7 992	1 627	1 130	−901	156 766	4 999	161 765
1981	6 497	1 341	1 231	−750	149 178	5 044	154 222
Total New Zealand—							
1985	20 310	8 875	6 193	−2 647	565 893	8 879	574 772
1984	20 405	8 017	6 226	−2 187	545 548	9 401	554 949
1983	19 243	9 520	5 118	−3 498	525 539	10 234	535 773
1982	21 583	9 094	7 293	−2 024	505 392	12 389	517 781
1981	16 686	9 419	8 198	−761	484 032	14 720	498 752

APPENDIX 4

TOTAL REMOVALS FROM STATE FORESTS YEAR ENDED 31 MARCH 1985

(Volume in thousands cubic metres)

Conservancy	*Indigenous*			*Exotic*			*Grand Total*
	Logs	*Smallwood*	*Total*	*Logs*	*Smallwood*	*Total*	
Auckland ..	1	..	1	440	67	507	508
Rotorua ..	5	..	5	3 114	83	3 197	3 202
Wellington ..	..	..	..	257	33	290	290
Nelson ..	6	..	6	184	14	198	204
Westland ..	158	..	158	7	..	7	165
Canterbury ..	..	..	..	155	15	170	170
Southland ..	73	..	73	198	17	215	288
Total:							
1984–85 ..	243	..	243	4 355	229	4 584	4 827
1983–84 ..	267	1	268	3 900	218	4 118	4 386
1982–83 ..	264	..	264	4 156	259	4 414	4 678

Notes:

(1) This table shows all roundwood removed from State forests under licences, permits and log sale agreements.

(2) Roundwood for pulp, fibreboard and particleboard is included with logs. Smallwood includes posts, poles and firewood.

APPENDIX 5

TOTAL WOOD REMOVALS FROM STATE INDIGENOUS FORESTS BY METHOD OF SALE YEAR ENDED 31 MARCH 1985

(Volume in cubic metres; Value in $000)

Conservancy	Logs		Smallwood		Total	
	Volume	Value	Volume	Value	Volume	Value
(a) Sales of Standing Timber						
Auckland	197	12	..	..	197	12
Rotorua	238	3	..	..	238	3
Wellington	..	..	..	..	..	..
Nelson	5 709	112	..	..	5 709	112
Westland	118 719	2 833	224	4	118 943	2 837
Canterbury	..	..	..	..	..	..
Southland	51 329	369	..	..	51 329	369
Total:						
1984–85	176 192	3 329	224	4	176 416	3 333
1983–84	202 070	2 928	503	10	202 573	2 938
1982–83	170 706	2 616	553	7	171 259	2 623
(b) Sales of Logs						
Auckland	544	40	..	..	544	40
Rotorua	4 893	319	..	..	4 893	319
Wellington	..	..	..	..	..	..
Nelson	222	6	..	..	222	6
Westland	39 075	1 390	..	..	39 075	1 390
Canterbury	..	..	..	..	..	..
Southland	21 589	363	..	..	21 589	363
Total:						
1984–85	66 323	2 118	..	..	66 323	2 118
1983–84	64 628	2 082	..	..	64 628	2 082
1982–83	93 448	2 788	13	..	93 461	2 788

Notes:

(1) Logs include sawlogs, pulplogs, and peeler logs.

(2) Values of log sales relate to the value of timber removed and are based on a bush skid or ride price point.

APPENDIX 6

TOTAL WOOD REMOVALS FROM STATE EXOTIC FORESTS BY METHOD OF SALE YEAR ENDED 31 MARCH 1985

(Volume in cubic metres; Value in $000)

	Logs		*Smallwood*		*Total*	
Conservancy	*Volume*	*Value*	*Volume*	*Value*	*Volume*	*Value*
	(a) Sales of Standing Timber					
Auckland	226 527	4 032	33 268	229	259 795	4 261
Rotorua	1 989 959	15 024	19 065	173	2 009 024	15 197
Wellington	80 023	1 698	25 729	254	105 752	1 952
Nelson	12 379	40	6 668	36	19 047	76
Westland	3 408	54	294	4	3 702	58
Canterbury	51 278	282	10 175	262	61 453	544
Southland	63 531	994	11 331	154	74 862	1 148
Total:						
1984–85	2 427 105	22 124	106 530	1 112	2 533 635	23 236
1983–84	2 132 233	15 404	164 005	1 431	2 296 238	16 835
1982–83	2 376 363	17 355	150 294	1 282	2 526 657	18 637
	(b) Sales of Logs					
Auckland	213 238	8 510	33 305	1 427	246 543	9 937
Rotorua	1 123 612	30 641	63 980	2 116	1 187 592	32 757
Wellington	176 614	5 402	6 934	217	183 548	5 619
Nelson	171 121	6 048	7 918	204	179 039	6 252
Westland	3 899	94	..	..	3 899	94
Canterbury	103 413	2 901	4 883	186	108 296	3 087
Southland	134 364	4 502	5 454	149	139 818	4 651
Total:						
1984–85	1 926 261	58 098	122 474	4 299	2 048 735	62 397
1983–84	1 768 717	43 278	53 502	1 708	1 822 219	44 987
1982–83	1 780 179	35 823	107 802	2 319	1 887 981	38 142

Notes:

(1) Logs include sawlogs, pulplogs, and peeler logs.

(2) Values of log sales relate to the value of timber removed and are based on a bush skid or ride price point.

(3) Due to rounding values may not always be added to totals shown.

APPENDIX 7

PRODUCTION OF ROUGH SAWN TIMBER FOR YEAR ENDED 31 MARCH 1984

(a) By Species

Volume in cubic metres

Conservancy (1)	Indigenous								Exotic				All Species			
	Rimu plus Miro (2)	Matai (3)	Totara (4)	Kahikatea (5)	Kauri (6)	Tawa (7)	Beech (8)	Minor Species (9)	Exotic Pines (10)	Douglas fir (11)	Eucalyptus (12)	Minor Species (13)	Indigenous (14)	Exotic (15)	Total (16)	Sawmills Registered (17)
Auckland ..	3 429	181	644	738	1 081	2 993	..	625	284 787	999	2 065	9 446	9 691	297 297	306 988	114
Rotorua ..	7 896	469	105	494	2	3 775	2	370	920 472	115 980	521	9 846	13 113	1 046 819	1 059 932	44
Wellington ..	9 300	578	313	1 079	..	513	..	20	234 779	9 606	151	5 932	11 803	250 468	262 271	73
Nelson	5 048	39	18	154	..	..	607	9	64 345	20 144	135	1 045	5 875	85 669	91 544	47
Westland ..	71 028	25	44	6 537	..	..	3 584	60	5 271	..	..	..	81 278	5 271	86 549	29
Canterbury ..	50	..	2	..	..	..	7	..	138 987	10 924	139	4 113	59	154 163	154 222	55
Southland ..	2 790	47	143	31	..	..	11 451	5	99 826	13 297	502	5 972	14 467	119 597	134 064	57
North Island—																
1983–84 ..	20 625	1 228	1 062	2 311	1 083	7 281	2	1 015	1 440 038	126 585	2 737	25 224	34 607	1 594 584	1 629 191	231
1982–83 ..	24 446	2 276	1 014	3 634	1 908	11 115	45	4 057	1 463 925	123 839	2 515	31 228	48 495	1 621 507	1 670 002	241
1981–82 ..	30 796	2 193	1 727	3 818	1 864	12 173	45	3 754	1 556 511	133 812	2 173	30 865	56 370	1 723 361	1 779 731	215
South Island—																
1983–84 ..	78 916	111	207	6 722	..	..	15 649	74	308 429	44 365	776	11 130	101 679	364 700	466 379	188
1982–83 ..	76 209	122	160	7 333	..	10	17 388	107	313 087	39 855	303	11 327	101 329	364 572	465 901	195
1981–82 ..	80 818	214	199	8 565	..	15	18 163	98	329 250	39 565	126	13 689	108 072	382 630	490 702	186
New Zealand—																
1983–84 ..	99 541	1 339	1 269	9 033	1 083	7 281	15 651	1 089	1 748 467	170 950	3 513	36 354	136 286	1 959 284	2 095 570	419
1982–83 ..	100 655	2 398	1 174	10 967	1 908	11 125	17 433	4 164	1 777 012	163 694	2 818	42 555	149 824	1 986 071	2 135 903	436
1981–82 ..	111 614	2 407	1 926	12 383	1 864	12 188	18 208	3 852	1 885 761	173 377	2 299	44 554	164 442	2 105 991	2 270 433	401

Notes:

(1) This table is based on statistics collected by the New Zealand Forest Service in connection with the annual registration of sawmills.

(2) Indigenous "Minor Species" (column 9) for 1983–84 include taraire, 514 m^3; mangeao 51 m^3; tanekaha, 33 m^3; kohekohe, 43 m^3; hinau 76 m^3; rewarewa 229 m^3; pukatea 24 m^3; other 119 m^3.

(3) Exotic pines (column 10) for 1983–84 include radiata 1 669 137 m^3 of which 13 121 m^3 were sleepers, corsican 52 444 m^3, ponderosa 6627 m^3, slash (P. elliottii) 8047 m^3 loblolly (p. taeda) 4737 m^3, strobus, 2893 m^3; other 4582 m^3.

(4) Exotic "Minor Species" (column 13) for 1983–84 include larch 12 066 m^3; macrocarpa 18 944 m^3; poplar 349 m^3; redwood 4338 m^3; other 657 m^3.

PRODUCTION OF ROUGH SAWN TIMBER FOR YEAR ENDED 31 MARCH 1984

(b) By Land Ownership

Volume in cubic metres

Conservancy (1)	Indigenous					Exotic				
	State forest land (2)	Unoccupied Crown land (3)	Maori land (4)	Private land and Crown leasehold (5)	Total (6)	State forest land (7)	Local authority (8)	Company and private land (9)	Total (10)	Grand total (11)
Auckland	337	..	1 512	7 842	9 691	204 886	1 794	90 617	297 297	306 988
Rotorua	5 432	..	3 479	4 202	13 113	539 355	3 133	504 331	1 046 819	1 059 932
Wellington	190	14	4 870	6 729	11 803	139 598	8 412	102 458	250 468	262 271
Nelson	2 123	..	..	3 752	5 875	46 949	2 360	36 360	85 669	91 544
Westland	72 681	..	..	8 597	81 278	5 042	..	229	5 271	86 549
Canterbury	..	..	..	59	59	41 767	25 265	87 131	154 163	154 222
Southland	6 446	..	6 683	1 338	14 467	81 395	12 664	25 538	119 597	134 064
North Island—										
1983–84	5 959	14	9 861	18 773	34 607	883 839	13 339	697 406	1 594 584	1 629 191
1982–83	12 906	..	7 228	28 361	48 495	902 225	17 534	701 748	1 621 507	1 670 002
1981–82	15 628	116	13 570	27 056	56 370	1 026 661	27 424	669 276	1 723 361	1 779 731
South Island—										
1983–84	81 250	..	6 683	13 746	101 679	175 153	40 289	149 258	364 700	466 379
1982–83	78 980	..	7 963	14 386	101 329	194 221	40 223	130 128	364 572	465 901
1981–82	81 017	25	10 758	16 272	108 072	206 207	34 536	141 887	382 630	490 702
New Zealand—										
1983–84	87 209	14	16 544	32 519	136 286	1 058 992	53 628	846 664	1 959 284	2 095 570
1982–83	91 886	..	15 191	42 747	149 824	1 096 446	57 757	831 876	1 986 079	2 135 903
1981–82	96 645	141	24 328	43 328	164 442	1 232 868	61 960	811 163	2 105 991	2 270 433

APPENDIX 8

THE FINANCIAL STATEMENTS OF THE NEW ZEALAND FOREST SERVICE FOR THE YEAR ENDED 31 DECEMBER 1984

These Financial Statements on pages 51 to 65 are prepared under the authority of section 16 of the Forests Act 1949 and satisfy the requirements of all relevant Statements of Standard Accounting Practice issued by the New Zealand Society of Accountants.

STATEMENT OF ACCOUNTING POLICIES

(a) **General Accounting Policies**

The general policies adopted in the preparation of these financial statements are:

—Unless otherwise stated the measurement base adopted is that of historical cost. Reliance is placed on the fact that the entity is a going concern.

—Accrual accounting is used to match expenses and revenue.

(b) **Particular Accounting Policies**

The following are the particular accounting policies which have a material effect on the measurement of operating results and financial position:

Consolidation: The financial statements show the consolidated operating results and financial position of forestry and sawmilling, after eliminating all significant intra-Forest Service transactions.

Sawmilling: Income tax payments, interest charges on loan finance, and dividends on share capital are accounted for.

Notional Financing Structure

The sawmilling financial statements in Note 8 are prepared on a basis consistent with trading companies. Because all net expenditure is funded through the Forest Service, a notional financing structure is in place to permit comparisons of sawmilling results with those of companies in the timber industry. Changes in the notional financing structure during the year are arrived at by:

(a) adding the 1984 retained profit to accumulated profits, and

(b) deducting from term finance the repayment of Government advances.

Income Tax

Only sawmilling is subject to company income tax. The difference in treatment for certain items, such as provision for depreciation at different rates applied for accounting and taxation purposes, gives rise to the deferment of tax payable. Deferred taxation is provided

to take account of timing differences between the treatment of certain items for accounts purposes and their treatment for tax purposes. The liability method is used to determine deferred tax.

Long Term Assets

Exotic Forests: Exotic forests are stated at the direct cost of establishment, tending, protection, and maintenance, together with the appropriate proportion of overhead costs. When the trees are harvested, costs capitalised in earlier years are charged to the operating statement in the proportion that the area cut bears to the total area of similar crops in the forest. The current value of the exotic forest crop is stated in Note 7(c) on the basis of the net present value of expected future yields having regard to current prices and costs, markets, commitments, log yields and locations of forests.

Indigenous Forests: No cost is stated for indigenous forest crops in the statement of financial position, as the present management policy is to perpetuate these forests as both natural forests and managed stands. Costs incurred on these forests during the year are charged to the operating statement.

Land: Land held for sawmilling is stated at the latest 5 yearly Government valuation. Land for forestry purposes is stated at cost, except that land transferred from Crown to State forest prior to 1974 has been stated at a nominal value of $1.24 per hectare. The total of the latest 5 yearly Government valuation of forestry land plus acquisitions at cost since valuation date is stated in Note 7(b).

Other Fixed Assets: All other fixed assets are stated at cost.

Depreciation: Depreciation is provided using the straight line method, after allowing for residual values. Expected average economic lives for the main classes of fixed assets are:

	Years
Fixed Plant, Machinery and Equipment	5–30
Buildings and Bridges	30–45
Cars and Trucks	6–12
Fire Equipment	10–15
Mobile Plant and Equipment	10–20
Radio Installations	5
Power Saws	4

Investments

Forestry Encouragement Loans and Grants: Forestry Encouragement Loans are shown at amounts advanced plus accrued interest. Under the provisions of the Forestry Encouragement Loan Regulations 1967, repayment of half the loans and all interest is waived after twenty

years provided the trees are clearfelled at maturity. No adjustment has been made for such waivers, as a number of years have yet to elapse before the first loans are due for repayment.

Forestry Encouragement Grants are expensed to operations. From 1 April 1983 Forestry Encouragement Grants superseded Forestry Encouragement Loans and deductibility of forestry expenditure for income tax purposes. From 8 November 1984 Forestry Encouragement Grants were abolished and replaced by tax deductibility.

Accounts Receivable: Accounts receivable are stated at expected realisable value, after providing for doubtful debts.

Inventories: Stocks and Stores are stated at the lower of latest purchase price or net realisable value, except as follows:

Log stocks—At cost.

Trading stocks—Sawn timber and manufactured timber products are stated at net realisable value determined from the wholesale list selling prices less 22.5 percent.

Retail trading stocks are stated at wholesale prices.

Wood chips are stated at net realisable value.

Stores—Forestry Bulk Stores are stated at average cost.

—Sawmill stores are stated at the latest purchase price.

Forestry Research: Research and development is expensed to operations.

Liabilities: Liabilities are stated at the estimated amounts payable and included all known obligations which can be reliably estimated. Current liabilities include the amounts payable in the next financial year.

Foreign Currencies: Foreign currency transactions throughout the year have been converted to New Zealand currency at the ruling rates of exchange at the dates of realisation and payment.

(c) **Changes in Accounting Policies:**

There have been no material changes in accounting policies. All policies have been applied on bases consistent with those used in the previous year, except that the method of valuation of Conical Hill Sawmill trading stock has changed from cost of production to wholesale list selling prices less 22.5 percent, which is the method currently adopted for Waipa sawmill trading stock. No material financial effect has resulted.

NEW ZEALAND FOREST SERVICE OPERATING STATEMENT FOR THE YEAR ENDED 31 DECEMBER 1984

	Note	1984 $(000)	*1983 $(000)*
Income Earning—Production Forestry and Sawmilling			
Turnover—sawmilling		60,672	*46,093*
Turnover—production forestry		80,056	*62,498*
Total turnover		140,728	*108,591*
Less operating expenditures	1	87,125	*79,546*
Operating surplus		53,603	*29,045*
Non-income Earning—Forestry Services, Research and Administration			
Operating expenditures		136,403	*66,636*
Less miscellaneous recoveries		21,143	*18,964*
Net operating expenditures	1	115,260	*47,672*

NEW ZEALAND FOREST SERVICE STATEMENT OF FINANCIAL POSITION AT 31 DECEMBER 1984

Funds Employed	Note		1984 $(000)	*1983 $(000)*
Funds—				
Sawmilling	8 (C)	39,801		*37,634*
Forestry		993,461		*881,169*
Total	5		1,033,262	*918,803*
Employment of Funds				
Fixed assets—				
Sawmilling	8 (C)	25,350		*20,749*
Forestry	7	994,882		*855,780*
Total			1,020,232	*876,529*
Investments	6		12,133	*10,897*
Current assets—				
Accounts receivable		30,216		*23,045*
Tax refundable		..		*1,419*
Inventories		23,463		*23,883*
Deposits		392		*371*
Total current assets			54,071	*48,718*
Total assets			1,086,436	*936,144*
Less Liabilities—				
Provision for tax		2,170		..
Accounts payable		49,581		*16,287*
Total current liabilities			51,751	*16,287*
Deferred tax		1,423		*1,054*
Total long-term liabilities			1,423	*1,054*
Total liabilities			53,174	*17,341*
			1,033,262	*918,803*

Notes 1 to 8, referred to above and that follow on pages 57 to 65, form part of and are to be read in conjunction with these financial statements

A. KIRKLAND, Director-General of Forests.
F. G. CLARKE, Director Finance.

NEW ZEALAND FOREST SERVICE STATEMENT OF CHANGES IN FINANCIAL POSITION FOR YEAR ENDED 31 DECEMBER 1984

	Note	1984 $(000)	1983 $(000)
Funds were provided from—			
Government	5	176,116	*149,550*
Operating surplus—Forestry production and sawmilling	1	53,603	*29,045*
Non cash adjustments			
Depreciation of fixed assets		6,240	*4,772*
Deferred tax		369	*510*
Decrease in Working Capital (refer below)		30,111	2,373
Total		266,439	*186,250*
Funds were applied to:			
Increase in fixed assets—			
Forestry	7	143,726	*131,571*
Sawmilling	8(d)	6,217	*3,333*
Increase in Investments	6	1,236	*3,674*
Net operating expenditures on Forestry Services, Research and Administration	1	115,260	*47,672*
Total		266,439	*186,250*
Increase/(decrease) in Working Capital was reflected in—			
Tax refundable		(1,419)	*1,419*
Accounts receivable		7,171	*2,576*
Inventories		(420)	*(2,011)*
Deposits		21	*22*
Accounts payable		(33,294)	*(4,582)*
Provision for tax		(2,170)	203
Total		(30,111)	*(2,373)*

Note 1:

OPERATING RESULTS BY PROGRAMMES

Income Earning—Production Forestry and Sawmilling

	Note	Forestry Exotic Production 1984 $(000)	Forestry Exotic Production 1983 $(000)	Forestry Indigenous Production 1984 $(000)	Forestry Indigenous Production 1983 $(000)	Sawmilling 1984 $(000)	Sawmilling 1983 $(000)	Consolidated* 1984 $(000)	Consolidated* 1983 $(000)
Turnover	2	86,444	65,949	5,474	4,668	60,672	46,093	140,728	108,591
Less operating expenditures	3	40,012	40,353	6,989	6,314	51,985	40,998	87,125	79,546
Operating surplus/(deficit)		46,432	25,596	(1,515)	(1,646)	8,687	5,095	53,603	29,045

Non-income Earning—Forestry Services, Research and Administration

	Note	Forestry Services 1984 $(000)	Forestry Services 1983 $(000)	Forestry Research 1984 $(000)	Forestry Research 1983 $(000)	Internal Servicing 1984 $(000)	Internal Servicing 1983 $(000)	Consolidated 1984 $(000)	Consolidated 1983 $(000)
Operating expenditures	4	92,982	24,429	17,911	16,763	25,510	25,444	136,403	66,636
Less miscellaneous recoveries		528	521	82	65	20,533	18,378	21,143	18,964
Net operating cost		92,454	23,908	17,829	16,698	4,977	7,066	115,260	47,672

* Income earning turnover and operating expenditures on consolidation have each been reduced by an amount of $11,862,000 (last year $8,119,000) to eliminate intra-Forest Service transactions. The effect on exotic production forestry turnover of $86,444,000, and indigenous production forestry turnover of $5,474,000 was to reduce the consolidated forestry turnover in the Operating Statement to $80,056,000. A provision for income tax payable to the Inland Revenue Department of $3,003,000 ($367,000 last year) on sawmilling profits of $10,971,000 ($4,577,000 last year) is included in sawmilling and consolidated operating expenditures. Note 8(E) (2) states details.

Note 2:
Turnover—Production Forestry

	Exotic Production		Indigenous Production	
	1984 $(000)	1983 $(000)	1984 $(000)	1983 $(000)
Income Earning—				
Wood removals—				
Sales of logs	62,810	48,468	1,978	2,214
Sales of standing timber	22,200	16,823	3,433	2,425
Total wood removals	85,010	65,291	5,411	4,639
Other revenues	1,434	658	63	29
Total turnover	86,444	65,949	5,474	4,668

Note 3:
Operating Expenditures

	Exotic Production		Indigenous Production	
	1984 $(000)	1983 $(000)	1984 $(000)	1983 $(000)
Income earning—				
Growing—exotics	6,159	6,261	–	–
Harvesting } Marketing }	33,853	34,092	2,589	2,607
Forest management	–	–	4,400	3,707
Total operating expenditures	40,012	40,353	6,989	6,314

Note 4:
Operating Expenditures

Non-income Earning	Forestry Services	
	1984 $(000)	*1983 $(000)*
Protection, recreation and amenity management in State forests—		
Soil and water conservation	2,612	*2,545*
Management of reserve areas	1,048	*529*
Recreation and amenity	7,408	*6,762*
Miscellaneous protection	397	*354*
Total	11,465	*10,190*
Forestry Sector Responsibilities—		
Wild animal control	5,250	*4,534*
Rural fire prevention and control	379	*487*
Disease and insect prevention and control	890	*641*
Forestry encouragement and extension, including grants of $71,953,000 ($4,731,000 last year)	72,864	*6,760*
Forest products extension and quality control	923	*804*
External training	341	*222*
Forestry sector planning	802	*714*
Foreign aid	34	*37*
Governmental servicing	34	*40*
Total	81,517	*14,239*
Total Forestry Services	92,982	*24,429*

Note 5:

Funds Employed

		1984 $(000)	*1983 $(000)*
Funds employed at 1 January—			
Sawmilling	37,634		*34,538*
Forestry	881,169		*752,556*
Total		918,803	*787,094*
Revaluation of land—sawmilling		–	*786*
From Government		176,116	*149,550*
Operating surplus—sawmilling	8,687		*5,095*
Operating surplus—forestry production	44,916		*23,950*
Operating surplus—total	53,603		*29,045*
Net operating cost—non-income earning	(115,260)		*(47,672)*
		(61,657)	*(18,627)*
Funds employed at 31 December—			
Sawmilling	39,801		*37,634*
Forestry	993,461		*881,169*
		1,033,262	*918,803*

Note 6:

Investments

	1984 $(000)	*1983 $(000)*
Shares in companies	34	23
Debentures—Tarawera Forest Ltd.	516	461
Loans—forestry encouragement	11,583	10,413
	12,133	10,897

Note 7:

Fixed Assets—Forestry: 1984

	Land $(000)	Forest Crops-exotic $(000)	Roads and Bridges $(000)	Buildings $(000)	Plant and Vehicles $(000)	Other Assets $(000)	Total 1984 $(000)	*Total 1983 $(000)*
Cost—								
Balance at start of year	32,427	659,033	80,905	49,100	44,575	23,408	889,448	757,877
Additions	7,669	115,721(a)	9,410	2,869	8,377	5,839	143,726	131,571
Deletions		(6,159)(d)						
Balance at end of year	40,096	768,595	90,315	51,969	52,952	29,247	1,033,174	889,448
Depreciation—								
Provision at start of year			447	10,301	21,354	1,566	33,668	30,323
Provisions for year			89	1,080	2,610	845	4,624	3,345
Provision at end of year			536	11,381	23,964	2,411	38,292	33,668
Net balance at end of year	40,096(b)	768,595(c)	89,779	40,588	28,988	26,836	994,882	855,780

(a) Additions were represented by:

Purchases	157	–
Establishment	34,404	32,852
Tending	28,083	24,560
Maintenance, protection, administration	53,077	51,800
	115,721	109,212

(b) Land is currently valued for forestry purposes at $451 million (last year $373 million).

(c) An exotic forest crop current value is assessed at $2,920 million (last year $2,310 million).

(d) Refer to Note 3.

Note 8:

Commercial Division—Sawmilling

THE FINANCIAL STATEMENTS OF THE COMMERCIAL DIVISION—SAWMILLING FOR THE YEAR ENDED 31 DECEMBER 1984

(A) Statement of Accounting Policies—refer page 51.

(B) Operating Statement

	Notes (E)	1984 $(000)	*1983 $(000)*
Sales		60,672	*46,093*
Operating costs	(1)	49,773	*41,516*
Profit before income tax		10,899	*4,577*
Provision for income tax	(2)	3,003	*367*
Tax paid profit for year		7,896	*4,210*
Dividend	(3)	1,049	*1,049*
Retained profits		6,847	*3,161*

(C) Statement of Financial Postion

Funds Employed

	Notes (E)		1984 $(000)	*1983 $(000)*
Government funds notionally represented by				
Share capital			5,827	*5,827*
Accumulated profits			29,397	*22,550*
Term finance			1,951	*6,631*
Total Government funds			37,175	*35,008*
Land Revaluation reserve			2,076	*2,076*
Fire reserve			550	*550*
			39,801	*37,634*
Deferred Tax	(2)		1,423	*1,054*
			41,224	*38,688*
Employment of Funds				
Current Assets				
Accounts receivable			10,583	*7,121*
Tax refundable	(2)		–	*1,419*
Inventories	(4)		14,487	*15,898*
Total Current Assets			25,070	*24,438*
Less Current Liabilities				
Accounts payable		5,977		*5,450*
Provision for tax	(2)	2,170		–
Provision for dividend		1,049		*1,049*
Total current liabilities			9,196	*6,499*
Excess of current assets over current liabilities			15,874	*17,939*
Plus Fixed assets	(5)		25,350	*20,749*
			41,224	*38,688*

Notes (1) to (6) referred to on page 61 and above and on pages 64 to 65 form part of and are to be read in conjunction with these financial statements in Note 8.

(D) Statement of Changes in Financial Position

	1984 $(000)	*1983 $(000)*
Funds were provided from—		
Government	–	–
Profit after tax	7,896	*4,210*
Disposal of fixed assets	122	*48*
Depreciation	1,616	*1,379*
Deferred tax	369	*510*
	10,003	*6,147*
Funds were applied to—		
Government	4,680	*851*
Purchase of fixed assets	6,339	*3,333*
Pay dividend	1,049	*1,049*
Increase/(decrease) in working capital (refer below)	(2,065)	*914*
	10,003	*6,147*
Increase/(decrease) in working capital was reflected in—		
Accounts receivable	3,462	*2,120*
Inventories	(1,411)	*(1,317)*
Accounts payable	(527)	*(93)*
Tax payable	(3,589)	–
Tax refund	–	*204*
	(2,065)	*914*

(E) Notes to the Financial Statements of the Commercial Division—Sawmilling

	1984 $(000)	*1983 $(000)*
(1) Operating costs include—		
Depreciation	1,616	*1,379*
Interest paid	791	*885*
Audit Fees	24	*19*
Net gain on disposals of fixed assets	(14)	*(34)*

(2) Tax Provision—

	1984 $(000)	*1983 $(000)*
Profit before income tax	10,899	*4,577*
Income tax at 45 cents in the dollar	4,905	*2,060*
Add/(Deduct) income tax effect of—		
Investment allowances	–	*(155)*
Export incentive rebates	(1,930)	*(1,498)*
Other items	30	*7*
Overprovision in prior years	(2)	*(47)*
Income tax expense	3,003	*367*
The tax charge for the current year comprises—		
Current tax (refund)	2,636	*(62)*
Deferred tax	369	*476*
	3,005	*414*
Less overprovided in prior years	2	*47*
	3,003	*367*
The movements in the current tax provision are as follows:		
Tax payable/(refundable) as at 1 January	(1,419)	*(1,215)*
Tax paid/(tax refunds received)	(1,421)	*(1,296)*
Underprovision/(overprovision) in prior years	(2)	*(81)*
Tax payable/(refundable) for the year	2,636	*(62)*
Less Provisional tax paid/(refunds received)	466	*(1,357)*
Tax payable/(refundable) as at 31 December	2,170	*(1,419)*

(3) Interest on Capital and Dividends

The Division incurs interest charges on loan finance, and has declared a dividend of 18 percent on share capital based on a notional financing structure.

Interest rates are reviewed annually. The interest rate on notional Long Term Borrowed Funds is currently applied at 11 percent (12 percent last year). The term of the loan is indefinite.

(4) Inventories

	1984 $(000)	*1983 $(000)*
Trading stocks	11,597	*12,989*
General stores	2,890	*2,909*
Total	14,487	*15,898*

(5) Fixed Assets

	At cost or Valuation		Accumulated Depreciation		Book Value	
	1984 $(000)	1983 $(000)	1984 $(000)	1983 $(000)	1984 $(000)	1983 $(000)
Land	2,108	2,108	–	–	2,108	2,108
Buildings and Improvements	9,135	8,185	2,410	2,235	6,725	5,950
Plant, machinery and equipment	23,812	21,805	10,074	9,114	13,738	12,691
Assets not completed	2,779	–	–	–	2,779	–
	37,834	32,098	12,484	11,349	25,350	20,749

REPORT OF THE AUDIT OFFICE

The Audit Office, having been appointed in terms of section 97, Public Finance Act 1977, has audited the financial statements of the New Zealand Forest Service.

The audit was conducted in accordance with generally accepted auditing standards and practices.

In the opinion of the Audit Office, the financial statements appearing on pages 51 to 65 fairly reflect the financial position as at 31 December 1984 and the results of financial operations for the year.

S. T. KEENE, Assistant Controller and Auditor-General.
23 August 1985.

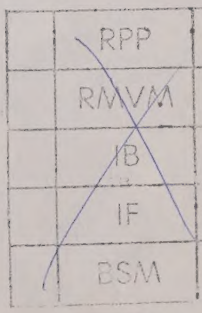
FINANCIAL AND STATISTICAL HIGHLIGHTS 5 CALENDAR YEARS

FOREST SERVICE	1984 $ million	1983 $ million	1982 $ million	1981 $ million	1980 $ million
Production forestry and sawmilling—					
Turnover	140.73	108.5	106.4	102.7	97.50
Operating surplus	53.60	29.0	30.0	30.6	25.20
Forestry Services, Research and Administration—Net operating cost	115.26	47.7	44.3	39.0	29.90
Total assets employed	1,086.44	936.1	799.5	669.1	553.20
Funds employed	1,033.26	918.8	787.0	657.7	539.60
Working capital	2.32	32.5	34.8	31.7	19.90

SAWMILLING—	1984 $(000)	1983 $(000)	1982 $(000)	1981 $(000)	1980 $(000)
Turnover—					
Export	20,911	15,835	12,488	13,369	13,917
Domestic	39,761	30,258	31,595	30,508	25,022
Total	60,672	46,093	44,083	43,877	38,939
Total remuneration to employees	18,983	16,501	16,821	15,910	13,399
Tax paid profit	7,896	4,210	4,747	5,846	5,552
Dividend	1,049	1,049	1,049	1,049	1,049
Retained Profits	6,847	3,162	3,698	4,797	4,503
Total assets	50,420	45,187	41,488	34,850	28,183
Working capital	15,874	17,939	17,025	12,769	9,904
Working funds employed	39,801	37,634	34,538	27,131	22,143
Production—cubic metres	229,788	193,536	199,885	216,406	219,014
Total personnel employed at 31 Dec.	856	831	824	863	877
Percentage of profits retained	87	75	78	82	81

PRODUCTION FORESTRY	1984 $ million	1983 $ million	1982 $ million	1981 $ million	1980 $ million
Exotic Production:					
—Turnover	86.44	65.94	64.81	61.45	60.91
—Operating Surplus	46.43	25.59	25.41	25.24	23.29
Indigenous Production:					
—Turnover	5.47	4.66	5.65	4.33	4.32
—Operating Deficit	(1.52)	(1.64)	(0.61)	(0.83)	(3.59)
Cost of forest crops—exotics	768.60	659.03	556.08	461.29	374.01
Cost of additions to forest crops—exotics	115.72	109.21	102.31	93.55	65.31
Current value of forest crops—exotics	2,920	2,310	2,065	1,840	1,475
Wood removals—exotics					
Sales of logs—(000) m^3	1,987	1,770	1,949	1,928	
Sales of standing timber (000)m^3	2,567	2,385	2,608	3,102	
Total exotics—(000) m^3	4,554	4,155	4,557	5,030	
Derived net stumpage—exotics (mean) $/$m^3$ (after deducting harvesting and marketing costs)	11.23	7.51	7.13	6.17	
Tree crop—exotics					
Planting—ha	29,618	29,097			
Thinning without wood removals—ha	48,063	45,838			
Pruning—ha	75,236	63,653			
Topdressing—ha	17,622	14,062			

BY AUTHORITY:
V. R. WARD, GOVERNMENT PRINTER, WELLINGTON, NEW ZEALAND—1985 39054H—PT


RPP
RM VM
IB
IF
BSM